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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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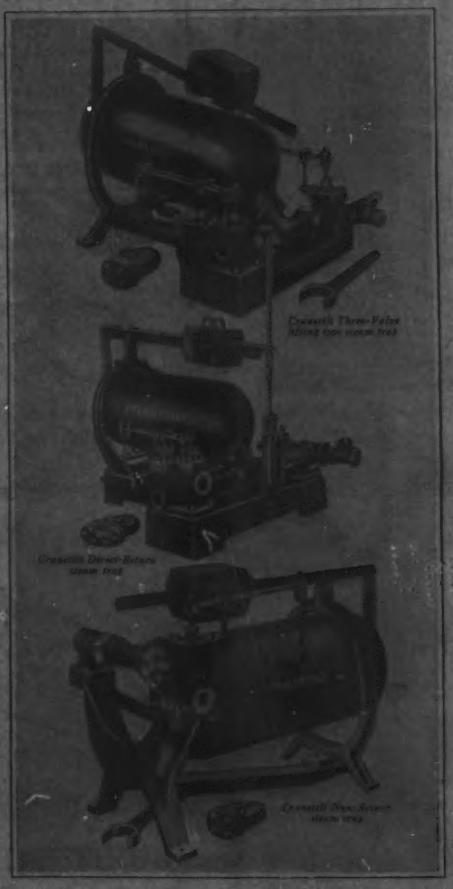

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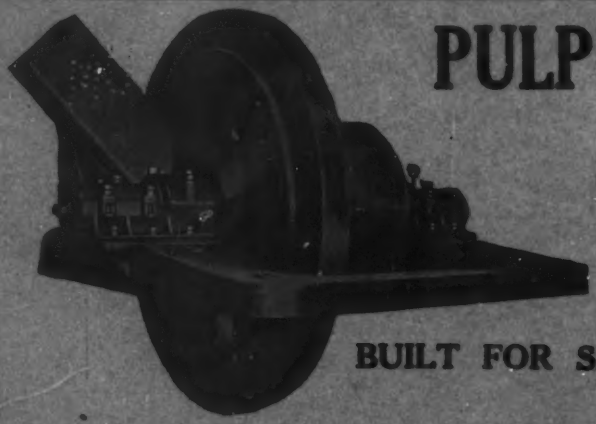

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FIFTY-SECOND YEAR
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PAPER TRADE JOURNAL

Vol. LXXVIII No. 1 NEW YORK AND CHICAGO Thursday, January 3, 1924

GROSS PAPER PRODUCTION ABOVE AVERAGE IN 1923

American Paper and Pulp Association Estimates Past Year Has Seen Production of More Paper Than Any Other Except Boom Year of 1920—Eight Per Cent Falling Off in November as Compared With Preceding Month No Cause for Anxiety When Total Output is Considered—Statistics Show Industry in Healthy Condition.

Production of paper by identical mills reporting to the American Paper and Pulp Association and co-operating organizations showed a drop of about 8 per cent in November from the October production, according to the monthly statistical summary of the paper and pulp industry.

Estimates for the year, however, based on the eleven months figures which are available show that the total volume of production in 1923 will be above any previous year except the boom year of 1920.

The tonnage summary is prepared by the American Paper and Pulp Association with the co-operation of the Binders Board Manufacturers' Association, Newsprint Service Bureau, Tissue Paper Manufacturers' Association, Wrapping Paper Manufacturers' Service Bureau and Writing Paper Manufacturers' Association. The figures for November follow:

Grade	Number of mills	Production Net tons	Shipments Net tons	Stocks on hand, end of month
News print	66	119,720	117,176	24,040
Book	69	62,904	62,158	27,221
Paper board	113	99,351	97,185	33,941
Wrapping	89	50,917	46,960	51,066
Bag	31	8,073	7,595	6,736
Fine	86	22,940	23,077	38,676
Tissue	45	9,703	9,622	7,999
Hanging	10	4,876	5,919	3,241
Felts	15	8,463	8,498	1,650
Other grades	62	15,845	14,847	18,736
Total	..	302,792	293,037	213,306

The statistical table below gives the number of mills reporting to the American Paper and Pulp Association and the U. S. Pulp Producers' Association, and the data as to production of the various grades of pulp.

Grade	Number of mills	Production Net tons	Shipments Net tons	Stocks on hand, end of month
Ground wood pulp	101	77,773	6,089	41,506
Sulphite, news grade	40	41,802	4,029	15,529
Sulphite, bleached	17	13,908	2,902	2,451
Sulphite, easy bleaching	5	4,742	444	983
Sulphite, mitscherlich	6	4,891	457	1,860
Sulphate pulp	14	14,071	1,691	15,887
Soda pulp	12	11,894	4,795	2,946
Other than wood pulp	2	84	78	134
Total all grades	...	169,165	20,485	81,296

Gardner-Harvey Paper Interests Consolidate

All of the assets and liabilities of The Colin Gardner Paper Company, The Gardner-Harvey Paper Company, The Gardner Paper Board Company, The Universal Paper Products Company, and the (old) Gardner & Harvey Company have been taken over.

These companies above named will be dissolved shortly and the new company will start operation on January 1. This is a consolidation of these old companies into one new company, known as The Gardner & Harvey Company, which will have 20,000 shares of non-par common stock and $300,000 of preferred stock, par value $100.

The Universal Paper Products Company was formerly a folding box department, and the other mills were run as separate corporations. They will now be under one head and one company, the officers and directors of which are as follows:

E. T. Gardner, president; Colin Gardner, vice-president; M. S. Johnston, secretary; R. B. Gardner, treasurer. Directors: George H. Harvey, Thomas Harvey, Arthur Harvey, J. J. Hain, J. C. Leach, W. H. Swan, and Earl Turner.

This business will be conducted along the same lines as in the past, and will continue the manufacture of boxboards and folding boxes.

American Writing to Pass January Dividends

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., December 31, 1923.—The American Writing Paper Company will be obliged to pass its January interest on its bonds, President S. L. Willson, of the company, definitely announced today. The company, which has a tax bill of about $200,000 due the city of Holyoke, began its payments last Saturday with $25,000, and the balance will be paid from time to time in partial payments, President Willson said today.

There has been a fall in the price of the bonds not warranted by the amount of the assets, Holyoke financial men agree. The property of the company in Holyoke is assessed for $10,000,000. At the price that bonds are quoted, the assessor's figures are much higher than the selling value of the plant.

President Willson was very optimistic about the future when speaking of the company's business today. He said that the American Writing Paper Company was getting its share of the paper business, but that after the new year, paper manufacturers generally were looking to see greatly increased business.

Form New Paper and Pulp Company

MONTREAL, Que., December 31, 1923.—A new company has been recently incorporated, with a capital of $10,000,000, to be known as the Steele Tremblay Paper Company, Ltd., which will carry on the business of manufacturers, dealers, importers and exporters of logs, lumber, timber, pulp and pulpwood. The head office will be located in Montreal.

Wood Paper Co. to Start at Memphis

MEMPHIS, Tenn., December 30, 1923.—The Wood Paper company, composed of J. E. R. G. and Ben C. Wood, Jr., will open for business about January 1 at 82 Washington avenue. The firm will handle paper, twine and stationery, and will cover the tri-state territory. J. E. Wood, formerly was with the Myers Paper company, while R. G. Wood has been with the Tayloe Paper company.

TIMELY QUIETUDE PREVAILS IN THE PHILADELPHIA TRADE

Some Revisions of Prices But These Are Not of an Important Character—Paper Stock Trade Is Extremely Quiet Over the Year End—Creditors of the Bridge Paper Co. Meet to Consider Financial Condition of the Concern—Paper Houses Take Advantage of Quiet Conditions to Study Statistics on Small Lot Orders—Dill & Collins Co. Closes Its Rochester Office.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, January 2, 1924.—Business of the week for both distributors of fine paper and of coarse purely was nominal, a development which would have occasioned surprise only if the opposite had been true. No one looks for any activity at all between the two big holidays and indeed few are very desirous of securing it unless it comes in the form of big orders. Small lot orders are never particularly catered to but certainly during holiday week, when everyone is engaged in taking inventories and in figuring out tax statements, the small business is more undesirable than at any other time. The trade, however, was successful in doing an ordinary business the time considered and there were no disturbing influences and no indications of any price changes. There were a few slight modifications but these were more in the line of adjustments than of changes. Of the two branches of the business the fine paper was really the quietest, and yet the distributors of printing papers are absolutely confident that the early week of the new year will bring to them a very large amount of business by the liberation of contracts for catalogues, direct-by-mail advertising pieces and other printing requiring a large amount of paper and which contracts for a long time have been held up awaiting just such a condition of general commercial prosperity as now seems imminent.

In the paper stock trade the week's story is the same as in the paper distributing. Were it not necessary to accommodate patrons such as the large department stores and the banks by gathering their waste paper, doors might well have been closed for the stock taking which also is in course.

Federal Reserve Review

In a survey of paper conditions which the Federal Reserve Bank for the Philadelphia District will make under date of tomorrow, it will say:

The demand for most grades of paper is not as good as it was last month nor as heavy as in December, 1922, and the majority of manufacturers declare it to be unsatisfactory. The approach of the annual inventory period always causes a falling off in orders, but this year, owing to the uncertainty of prices, buyers lack confidence and are buying for immediate needs only. Manufacturers of wrapping and kraft papers report that heavy imports and large increases in domestic capacity this fall have made serious cuts in their business, and few are operating at more than 70 per cent. Makers of tags and tag stocks find that their products are in only fair request, and operating at about 60 per cent. Producers of book paper also report only a fair demand, and their mills are running at about 70 per cent. The call for bond and writing papers is not as good as it was last month, and consequently production at fine paper mills has declined to about 75 per cent of capacity. Manufacturers of fine tissues report a good demand; but the call for toilet tissues and crepe towels is poor. Wall papers are in request, and most factories have at least 60 days' business on hand and are working at capacity. The demand for envelopes continues to be fairly good, and the average of operations is about 85 per cent. Boxboards, particularly news and chip, are in slightly better request than they were a month ago, but sales in tons are smaller than they were in December, 1922. Except for wall papers, practically all orders are for immediate shipment. Jobbers report that their sales show a decline from those of October and November, but the majority state that sales compare favorably with those of December, 1922. Their coarse paper departments, however, are not as active as they were a year ago.

Paper prices are still weak, and though, on the whole, they have changed but little since last month, concessions are readily obtained by large buyers. At the close of last month several manufacturers reduced their prices on sulphite bonds by about 10 per cent, but rag-content bonds are holding firm. Boxboard prices have remained stationary at the lower levels established at the close of November. Chemical and mechanical pulp prices show only slight changes from those of a month ago and are firm.

Finished stocks at the mills vary from moderate to light, and in general are decreasing. Stocks of raw materials are moderate and are also decreasing. The supply of skilled labor is adequate, and unskilled labor is plentiful. Wages are unchanged. Collections range from fair to good and are much the same as they were in November, but slower than in December, 1922.

Bridge Co-Creditors Meet

A development of the week was the calling together of the creditors of the Bridge Paper Company, whose business history extends only over a year or two and which until recently was located at 141 N. 6th street, but which now has its headquarters for the sale of coarse papers and twines on 10th street, above Girard avenue. A statement was submitted to the creditors showing liabilities of about $5,300, with assets in the shape of cash receivable of but $1,700, and of which it was said about $1,000 was probably uncollectible. There is, however, some stock on hand and a compromise offer of settlement on the basis of 20 per cent in full payment was made by the proprietor, Max Dubin. This offer is being held under consideration by some of the creditors, none of whom, however, have very large claims, it being understood that the largest amount is on the part of A. B. Goldman in the Reading Terminal. The American Manufacturing Company has a claim for over $400, and Frank W. Winne & Co. for slightly more than $100. It is expected that during the coming week a decision will be reached.

Studying Small Lot Question

In between times the trade has been studying the statistics on small lot sales gathered from the representative houses in the city by the Paper Trade Association and from several out-of-town houses personally by George W. Ward of the D. L. Ward Company. These figures show in the general way that the percentage of sales in the five classifications made to them $5.00 and less, $10.00 and less, $25.00 and less, $50.00 and less and over $50.00 is just about the same as in other cities. The consoling feature, however, is that in comparison with similar figures compiled last year by then President Allen E. Whiting, a slight improvement has been made. There was a decline in the percentage of sales in the $5.00 and less classification and a like decline in the $10.00 and less, and a gain of about the same amount in what is known as the large order class, $50.00 and upwards. For the other two groups the figures are about identical with those of a year ago. Consideration of further steps to reduce the large percentage of small order business is being given. A change in the situation has taken place during the year in that now there is virtual unanimity on the subject of discouraging the small lot business. It was the opinion at the time the first figures were compiled that there was absolutely no profit on sales of less than $10.00 and that there was actual loss on every sale made for less than $5.00 when first cost of material, delivery charges, and other elements of overhead were taken into consideration. One of the larger firms, however, took the position that its organization especially had been developed to secure small order business and that it was, therefore, in a position to handle it with

profit. Now, however, this concern, one of the most important in the trade, is in full harmony with the general program.

Dill & Collins Closes Rochester Office

Official announcement was made during the week that tomorrow Dill & Collins Company will close its Rochester office which for the past five years has been located in Room 1225 Commerce Building. On that date The George E. Doyle Company, 119 N. Water street, will become exclusive agents for Rochester and the territory in western New York State and will carry in stock a wide and comprehensive line of the Diamond D. papers. Morse Gordon, the former Rochester manager, will continue his association with the line as manager of the book paper department of the George E. Doyle Company. This step is in line with the firm's recently announced policy of making a change from the old system of direct selling to the new one of distribution through regular paper house distributors.

Fire in Manayunk Mill

Fire which destroyed considerable stock in the store rooms of the Philadelphia Paper Manufacturing Company, Nixon street, above Fountain, in the Manayunk district, resulted in injury to several firemen and employees of the firm. The fire was discovered in one of the one-story concrete buildings used for the sorting and storing of baled waste paper used in the manufacture of paper board. The fire, it was believed, resulted from some inflammable article stored away among the bales of paper and which, through spontaneous combustion, became ignited. Six men were at work in the building when the bales burst into flames and the rapidly spreading flames soon covered the entire stock.

Swenson Evaporator to Move

The Philadelphia sales office of the Swenson Evaporator Company, formerly located at 1309 Weidner Building, has been moved to 1228 Spruce street. The office is in charge of P. B. Sadtler, chemical engineer, who is assisted by H. B. Caldwell. The New York sales office is located at 136 Liberty street. The Swenson Evaporator Company has recently added to its eastern sales staff, H. B. Caldwell, chemical engineer, formerly assistant plant superintendent for Zimmer & Co., Hastings-on-Hudson, N. Y. Mr. Caldwell is a graduate of Massachusetts Institute of Technology. He will work with P. B. Sadtler, who is in charge of the Swenson sales offices located at 1228 Spruce street, Philadelphia, and 136 Liberty street, New York city.

News Items of Interest

Gilbert Spare, who has had an experience of more than a score of years in the paper trade and lately was manager of the credit department of the Garrett-Buchanan Company, is now connected with the D. L. Ward Company as an assistant to treasurer, Ralph G. Luff, and he will also represent the firm on the street.

C. Edgerton Warburton, who is a son of the Director of Public Welfare, and who some months ago left the Paper House of Pennsylvania sales force, has become connected with the Garrett-Buchanan Company organization.

A convention of all the sales representatives in the eastern states was held at the Scott Paper Company manufacturing plant in Chester, Pa., during the week. A three days' sales promotion plan for the coming season was outlined during the series of conferences held between the executives and their road representatives. Following the business talks and sessions in the mills a banquet was held at the Chester Club. T. B. McCabe, Philadelphia manager, whose headquarters are located in the Weightman Building and W. S. Mohan, divisional sales manager, attended as Philadelphia representatives of the company.

Under condemnation proceedings, the old-established paper stock warehouses and headquarters of M. O. Raiguel Company, 305 Florist street, have been taken over by the city as part of the property which will be used for the construction of the Philadelphia-Camden bridge, and notification that vacancy must be effected by February has been given.

International Paper Co. Earnings

The International Paper Company, it is estimated, says the *Wall Street Journal*, will show earnings this year of between $6 and $7 a share on the slightly less than $20,000,000 common stock. This would mean earnings of between $1,200,000 and $1,400,000 after fixed charges, depreciation and preferred dividend, and compares with a net loss of over $7,500,000 after charges, depreciation and inventory adjustment, but before preferred dividend, in 1922.

The policy of the company is to put its earnings into operations which will add to income. Development of water powers and sale of current to other corporations is becoming an increasing source of revenue. President Dodge has declared that the steadily increasing demand for electricity justifies making these hydro-electric developments as speedily as financial conditions permit.

Ratio of current assets to current liabilities was almost two to one at the end of 1922. Properties were carried on the books at over $57,000,000, woodlands held directly and through subsidiary companies at over $7,800,000 and securities at $3,600,000. A big part of the losses incurred in the last two years was represented by drastic marking down of inventories, mainly in woodpile which was stocked with war-priced wood. It is understood that this adjustment was completed in 1922.

Bank loans totaling $12,623,132 at the end of 1922 have been cut about $2,500,000 during the year, and now stand around the $10,000,000 mark. It is considered unlikely that these will be reduced further before the end of 1923, as winter logging operations call for heavy investments.

Last year 37 per cent of the entire output of 433,809 tons was of other grades than news print, and it was expected that the proportion would be larger this year. A poor market for high grade paper has cut production in this line, especially in the last four months, although news print output is over 1,200 tons daily.

It is difficult to estimate percentage of income derived from International Paper's hydro-electric developments. The Sherman Island plant, selling power to outside industrial interests, is expected to add $500,000 to net income. Between 22,000 and 25,000 horse power is developed at this plant on the upper Hudson, which commenced operating this year. Another hydro-electric plant on the Saranac river, selling current for industrial operations, should prove a profitable source of income. In addition to these plants in operation, two more developments have been started, one above Glens Falls, and one at High Falls on the Saranac. About 20,000 horse power will be developed at these plants. Total water power owned and used by different mills of International Paper Company, developed and undeveloped, aggregate almost 275,000 horse power.

Labor conditions are harmonious, in contrast with two years ago, when a protracted strike held up production and did much to cause losses. Wages were increased 8 per cent all along the line this year. An insurance plan has been installed, and has been taken advantage of by over 90 per cent of the employes. The company has just completed erection of 82 dwellings for employes at Niagara mill, which will be sold at cost on easy terms.

Columbia River Paper Mills Increase Stock

[FROM OUR REGULAR CORRESPONDENT.]

VANCOUVER, Wash., December 30, 1923.—The stockholders of Columbia River Paper Mills company voted to increase the common stock $500,000, making a total issue of $1,250,000 of common stock. The stockholders will absorb $375,000 of the new issue and the rest will be held in reserve for the present, said J. J. Donovan, secretary. The company is employing 126 men in construction work and operating the sawmill unit which is cutting over 10,000 feet of lumber daily and has shipped nearly 1,000,000 feet. Erection of the steel framework for the main paper mill building is being rushed as fast as weather conditions will permit.

DULL DEMAND IN CHICAGO PREVAILS OVER YEAR'S END

Inquiries for Both Fine and Coarse Papers, However, Are Coming In In Sufficient Quantity to Indicate a Much More Satisfactory Demand Soon—Considerable Increase Also Is Expected Shortly in Demand for Board With Likelihood That Prices Will Be Increased—National Container Association to Meet in Drake Hotel Tuesday and Wednesday, January 22 and 23.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, December 31, 1923.—For the week between Christmas and New Year's Day, the Chicago paper market was rather dull, the trade generally marking time until the opening of the new year. Inquiries in both fine and coarse paper are coming in in sufficient number to indicate a much healthier paper market during the month of January. As a matter of fact, numerous orders are being booked as a result of these inquiries for early January delivery. Paper men look to the immediate future with greater confidence than they have had for several months.

Look for Increase in Board and Container Prices

It is reported by an official of a large and well-known Chicago concern that there are more orders for paper boards and containers on hand now for January and February delivery than for several years. This is but a slight evidence of what spring trade will be. Without question it will run into heavy tonnage. However, there is no change in prices looked for during the month of January. But at the end of the first month of 1924 an increase is expected. Swedish pulp is selling for a very low figure at present which it is said will go up shortly. Waste papers are holding firm. Most liners are selling at low prices, it is stated. Considering these factors, it is certain that prices of boards and containers will take an upward turn when the demand becomes stronger.

Board Mills Shut-Down Piles of Paper Stock

Board mills in nearly every part of the country were shut down from December 24 until January 2. Consequently, waste paper stocks began to accumulate in the hands of dealers. This accumulation, it is contended will keep prices down at least until it is consumed. The low price of pulp is also attracting some of the demand which ordinarily is experienced in old magazine stocks. The latter is used in the manufacture of book papers and producers are resorting to the use of pulp instead of old magazine stock. However, with a rise in pulp quotations, it is hoped that mannufacturers will come back to the waste paper market.

Roofing Stock Market Takes Upward Turn

The roofing stock market is reported by Chicago dealers as being firm with a tendency toward higher levels. In fact, No. 1, 2, 3 and 4 stock is all approximately $2 per ton higher this week, with a strong demand.

A great many Chicago paper houses closed down on the Monday preceding Christmas and New Year's Day, believing that it was hardly worth while to remain operating in view of the fact that many business men went out of the city for a few days' vacation. Very few visitors came to the city during the past week, most traveling men taking advantage of the holiday season to remain at home.

Container Association Meets in Chicago, January 22-23

H. S. Adler, secretary of the National Container Association, with headquarters in the Transportation Building, Chicago, announces that the next meeting of the association will be held at the Drake Hotel, this city, Tuesday and Wednesday, January 22 and 23. An interesting program is being arranged, an announcement of which will be issued at a later date. It is certain, however, that many subjects of importance to the industry are docketed for discussions and indications at present are that sessions will draw a large attendance. Meetings of the Executive Committee and of the three Standing Committees, namely Standardization, Statistical and Sales Promotion, will be held in Chicago on the day preceding the regular meeting. These will be on Monday, January 21. Hotel reservations should be made early as the Drake is nearly always well filled. Requests for reservations should be sent to Mr. Adler at the Chicago office.

"Wroe's Writings" a Real Factor in Sales Volume

Every one of the sixteen pages of "Wroe's Writings," the monthly organ of W. E. Wroe & Company, Chicago, is prepared with two objects in view: (1) To further the use of fine writing papers, and (2) to boost sales for the company. Needless to say, it accomplishes both for no publication constructed along the lines of "Wroe's Writings" can fail to achieve its objective.

The publication carries a line across the top of each issue which reads, "This is a Price List." However, less than half of it is devoted to a price list. The December issue is typical of all others, except that it carried some Christmas embellishment in keeping with the season. In that issue, the first nine pages included discussions of current topics, a size-up of the writing paper situation, short articles on various phases of the market and some humorous contributions. For instance, the front page contained an article on "American and the Christmas Spirit," being the Christmas message of the company to its friends and customers. On the third page was given the "Writing Paper Trade Conditions," written by W. E. Wroe, president of the organization. Nearly every issue has this feature by the chief executive and in his absence, one of the other officials supplies the department. On page four, in the center, is nearly always a cartoon illustrating a snappy joke. Following this came three pages under the title, "The Business Outlook." In the center of the first page was a poem "Waiting," set off in an attractive border. Another cartoon appeared in the center of the next page, while the third wound up with several jokes. Beginning then with page nine and running through to the end were quotations on various brands of writing paper handled by the Wroe company.

The organ is 7½ inches wide by 10½ inches high with a printing surface six by nine inches in size. Red and black are used nearly always. The December number contained initial cuts for each feature article with holly decorations in red and green.

More Active Paper Bidding

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., January 2.—Due probably to the change in specifications the Government Printing Office is receiving requests for bid blanks from many new firms for the annual opening on January 28, it has just become known.

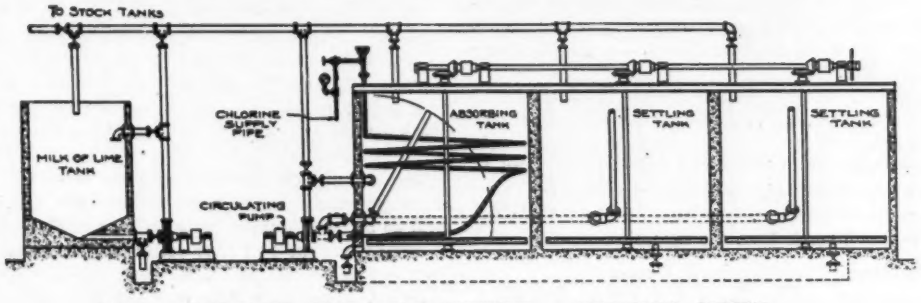
Up to the present time the same jobbers and mills have been bidding for years at the annual opening of the Joint Congressional Committee on Printing. It is understood, however, that due to some of the changes which have been made that many firms who have not bid up to this time, are anxious to see what kind of an arrangement they can make for government business. Indications here are that the government officials are more anxious to buy paper along commercial lines than ever before.

To Manage Bastrop Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

MONROE, La., December 31, 1923.—W. W. Henderson, assistant manager for the Bastrop Pulp and Paper company, at Bastrop, for the last three years, has been promoted to the office of manager of the company. Mr. Henderson succeeds E. L. Cullen, who was manager of the company from the time of its organization until recently, when he resigned.

MATHIESON System



BLEACH LIQUOR PLANT USING LIQUID CHLORINE – MATHIESON SYSTEM

Your Present Bleach Equipment Is Readily Adaptable to the Use of Liquid Chlorine by the Mathieson System

IN THE above sectional drawing a typical bleach plant is shown converted to the use of the Mathieson System simply by the installation of the lead coil and liquid chlorine connections which are brought out in solid black. One of the settling tanks is made the chlorinating tank while the former bleach mixing tank is used without change for preparing the milk of lime which is then pumped to the chlorinating tank.

Liquid Chlorine from the Mathieson ton container or 150 lb. cylinder enters the lead coil through an expansion valve, vaporizes and is discharged into the suction line of the circulating pump. The heat of reaction between the chlorine and milk of lime is offset by the refrigerative effect of the liquid chlorine evaporating in the lead coil, thus keeping the temperature of the liquor within safe limits.

A few advantages of the Mathieson System are:

Solutions uniform in strength and of any desired concentration.
No formation of chlorates or over-chlorination.
No expensive equipment to adapt it to existing installations.
Elimination of complicated valves and control apparatus.
Simplicity and economy of operation.
Increase of safety factor by the provision of small-unit chlorine storage.

Our Technical Department will gladly demonstrate the greater safety and economy of this system.

Send for our new booklet: "Mathieson Chemicals for the Pulp and Paper Industry."

THE MATHIESON ALKALI WORKS, *Inc.*

25 WEST 43rd STEET NEW YORK CITY

PHILADELPHIA PROVIDENCE
CHICAGO CHARLOTTE

EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Bicarbonate of Soda Sesquicarbonate of Soda
Liquid Chlorine-Caustic Soda Bleaching Powder-Soda Ash

VICTORY BAG AND PAPER CO. TO BUILD LARGE WAREHOUSE

Installation of More Machinery and an Increase of About 50 Employees Will Result from the Expansion—Interest in Correspondence Courses in Paper Making Spreads in the Wisconsin Valley—Consolidated Water Power and Paper Co. to Hold Recreational Institute in Biron, Jan. 11 and 12—Kimberly Clark Co. Hold Christmas Parties—Valley Iron Works Entertains Employees.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., January 2, 1924.—The Victory Bag and Paper Company, Marinette, last week began construction of a large warehouse across the street from its present plant to permit the company to utilize more room in its buildings for manufacturing purposes. A considerable increase in production of bags will result from the new venture and it is said the company also will begin the manufacture of bag specialities.

The new building will be of frame construction, 170 feet long by 100 feet wide, one story high, but so constructed that another story can be added. A chute will connect the warehouse with the main building across the street, but when the second story is added to the warehouse overhead construction will unite the buildings.

Installation of more machinery and increase of about 50 in the number of employees will result from the expansion.

Vocational Correspondence Course

Success of the vocational correspondence courses arranged through the co-operation of the extension division of the University of Wisconsin and the Forest Products laboratory, at the Nekoosa and Port Edwards mills of the Nekoosa-Edwards Paper Company, has influenced other paper manufacturers in the Wisconsin river valley to institute similar courses and it probably will be only a short time when employees in Fox river valley mills will have an opportunity to gain theoretical knowledge which will assist them in bettering their positions in the paper industry.

The Wausau Sulphate Fibre Company is the latest to organize classes and about 30 pupils began instruction last week. The employees began work in shop drawing and will meet each week to study the lessons prepared by the extension division of the University. Another group has been formed for the study of electricity, and other classes will organize as interest in various subjects connected with papermaking is developed.

Judson G. Rosebush of the Patten Paper Company, also interested in the Nekoosa-Edwards Company, made a personal investigation of the work at Port Edwards and Nekoosa and it is believed his interest in the progress of the working students will result in formation of similar classes in the Fox river valley in the very near future.

To Hold Recreational Institute

The Consolidated Water Power and Paper Company will hold a recreational institute in the community hall at Biron January 11 and 12 at which representatives of the university extension division will be speakers. These institutes are quite largely for the purpose of instructing leaders in community recreational activities.

Papermill owners in many instances are backing up the vocational classes and the institutes with their thought and energy and it is expected that in a short time every mill employee in the state will have an opportunity to increase his knowledge of papermaking, thereby fitting himself to become a more valuable workman in the plant in which he is employed.

Doings at the Kimberly-Clark Mills

Shortage of water during the fall created a more or less serious situation at the Niagara mill of the Kimberly-Clark Company. Because of lack of power, only a few grinders could be operated in the ground wood mill and it was feared that the shortage of pulp would make it necessary to shut down the paper machines, but this was avoided by working the grinders for 16 hours on one day to replenish the supply.

The entire Niagara mill was closed from 7 o'clock Sunday morning until 7 o'clock Wednesday morning for the Christmas holiday. Lockers for employees in the papermill will be installed at once, but the lockers for sulphite mill employees will not be erected until in March or later.

Two Christmas parties for superintendents, department heads and foremen of the Kimberly-Clark Company were held last week. About 60 superintendents and department heads were guests of the company at the eighth annual Christmas dinner in the Valley Inn at Neenah and about an equal number of superintendents and foremen of the company's plants at Neenah, Kimberly and Appleton attended a similar party at the new community clubhouse at Kimberly.

F. H. Clausen of Horicon, president of the Wisconsin Manufacturers' Association, discussed the political situation in Wisconsin at the meeting in Neenah, and the Rev. W. T. Dorward, Milwaukee, spoke at the Kimberly gathering.

A volleyball game between superintendents and foremen followed the Kimberly meeting.

Logging Operations Held Up

Logging operations in northern Wisconsin and in Minnesota are held up by the absence of snow and as a result little or no pulpwood is coming into the Fox river valley. Quite a quantity of wood has been cut in the woods but shipment will not start until there is sleighing. The temperature here has been exceedingly mild, thermometers registering as high as 60 degrees above zero in the last week.

Against Cutting of Christmas Trees

Pulp manufacturers of Wisconsin are looking with apprehension upon the indiscriminate slaughter of young spruce and balsam trees for "Christmas trees," according to word from the northern part of the state. Carload after carload of small trees have been cut for shipment to the cities, and as a result there is serious danger that efforts at reforestation will be useless. Steps already have been taken in some communities to put a stop to the use of small balsam and spruce for Christmas trees so that the saplings can mature and become useful for paper making. Use of imitation trees is suggested as a way of doing away with the annual waste.

Valley Iron Works Entertain

Employees of the Valley Iron Works, about 160 in all, were guests of the company at a Christmas party in Appleton at which the Rev. W. T. Dorward was the speaker. The Interlake Pulp and Paper Company also entertained its employees and their families at a Christmas party.

J. G. Rosebush in Y. M. C. A.

Judson G. Rosebush, president of the Patten Paper Company, who was one of the leaders in the movement for adopting a new constitution for the Young Men's Christian Association, has been delivering a number of addresses in various parts of the state explaining the new basic law to Y. M. C. A. directors. In every instance the local directors have ratified the constitution after hearing Mr. Rosebush's explanation.

Dallas Paper House Burns

DALLAS, Tex., December 31, 1923.—Loss of approximately $150,000 was caused by fire here which destroyed the three-story warehouse of the E. C. Palmer Paper company. Firemen had narrow escapes when walls of the building collapsed. Origin of the blaze is not known.

14,000 Tons of Paper pass through Bird Screens Daily

Production jumps 5 tons a week

"There are no breaks in the paper caused by lumps or slime since we installed the BIRD SCREENS," remarked the Superintendent. "The stock is uniformly clean. The paper forms better and dries more easily.

"Production is at least 5 tons a week greater on our 110-inch machine. We don't have to shut down to wash up screen plates during the week."

In these very simple statements are summed up the experiences of hundreds of users of Bird Screens in the Pulp and Paper mills of the United States and Canada. If you have not received a Bird Screen catalog please write for one at once.

BIRD MACHINE COMPANY

South Walpole **Massachusetts**

Western Representative
T. H. Savery, Jr., 1718 Republic Bldg.
Chicago, Ill.

Canadian Builders of Bird Machinery
Canadian Ingersoll-Rand Co., Ltd.
260 St. James Street
Montreal, Canada

BIRD SCREENS

5909

TORONTO TRADE LOOKS FOR MORE ACTIVE PAPER DEMAND

Request for Practically All Varieties of Paper and Wood Pulp Are Quiet, as Usual, at Present—Hammermill Paper Co. of Erie, Pa., Is Large Buyer of Pulpwood in Port Arthur and Fort William District of Ontario—Paper Trade Is Considerably Concerned Over New Federal Sales Tax of Six Per Cent Which Has Just Gone Into Effect—Other Paper Trade News.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., January 2, 1924.—The principal topic of conversation heard in the different warehouses is, what will 1924 bring forth and how soon will business open up with some life, an element which has been missing for some weeks. Inventories are being completed at all the mills and warehouses and preparations made for annual meetings, the collection of overdue accounts and cleaning up other odds and ends, for a clear course during the coming twelve months. No price changes have taken place except in the tissue line where there has been a slight reduction on No. 1 white and manila tissues. The pulp market is rather quiet and prices are a little easier, especially on groundwood pulp, which is now bringing from thirty-eight to forty dollars at the mill.

Spends Million Dollars for Pulpwood

One of the largest buyers of pulpwood in the Port Arthur and Fort William district of Ontario is the Hammermill Paper Company, of Erie, Pa. Through contractors and jobbers the company has for the past twenty years been purchasing pulpwood at the head of the lakes and a few years ago an office was opened up in Port Arthur under the management of M. Cochran. The company handles exportable wood, which it drives, rafts and loads on to vessels. Eighty-five per cent of the wood is bought from settlers, who are paid in full when the product is delivered on the banks of the various streams. Last year about a million dollars was spent in the purchase and handling of wood in the Thunder Bay district and the firm gave employment to some six hundred men in the bush during the winter months. This coming season, it is purchasing about the same quantity.

New Federal Sales Tax Effective

The new federal sales tax of six per cent has gone into effect and is of much concern to the paper trade. Under the new act, job printers will be permitted to get a license as manufacturers and their purchases of raw materials will be exempt from the sales tax, but a tax will be collectible on their own sales. Publishers will not be able to get a license as manufacturers as heretofore and a sales tax will be collectible on their raw materials. The Canadian National Newspapers and Periodicals Association is endeavoring to have this changed. To save confusion it is advisable, on all purchases of paper, that every effort be made at the time of purchase to determine whether such materials are to be used in a publisher's own publications or in a piece of job printing so as to know whether they are taxable or not.

Historic Paper House Celebrates

Buntin, Gillies & Co., Hamilton, wholesale paper dealers, are celebrating their seventy-fifth anniversary, having been founded in 1848 by the late Alex Buntin, who was soon after joined by his brother, the late James Buntin. Alex Buntin moved to Montreal where he started a similar business, as he also did in Toronto, under the name of Buntin Bros. & Co.—later Buntin, Reid Co. James Buntin died in 1861 and shortly after the style of the firm was changed to Buntin, Gillies & Co., the resident partner and manager being the late David Gillies, a nephew of the Buntins and father of J. B. and D. S. Gillies. After the death of Mr. Gillies in 1888, the business was continued by the trustees of his estate under the management of C. W. Graham, who had been in the employ of the company since 1879. In 1903 the business was incorporated under the name of Buntin, Gillies & Co., Limited, with James B. Gillies as president, C. W. Graham as vice president and David S. Gillies as secretary-treasurer. In 1917, Messrs. Gillies retired from the company, having disposed of their holdings to Mr. Graham, who has since carried it on most successfully. Mr. Graham is a former president of the Canadian Paper Trade Association. The company has a large warehouse and factory in Hamilton and a branch warehouse in Ottawa, of which John F. Neville is manager. At the present date the average length of service of fourteen active members of the staff is twenty-nine years.

Defends Cutting of Christmas Trees

Dr. C. D. Howe, Dean of the Faculty of Forestry of Toronto University, has come out strongly in favor of the cutting of Christmas trees against which a great outcry has been raised in certain quarters. He states that he does not believe that 2,500,000 Christmas trees of fir, balsam and spruce have been exported to the United States during the past month as reported. He added that nature puts two thousand young trees to the acre. When they get ready for pulpwood only about two hundred trees are left, the rest having been killed in the struggle for existence. It is, therefore, a legitimate business to sell the young trees rather than wait until they have grown to pulpwood size. Dr. Howe said that the reason for the statement that Ontario trees were cut to support the American market was not that the Washington government prohibited the cutting and shipment of trees from the New England states to conserve them, but for an entirely different reason. An embargo was put on the importation of Christmas trees from the New England states on account of the gypsy moth. This pest is all over New England and evergreen trees act as carriers of eggs.

Notes and Jottings of the Industry

I. H. Weldon, president of the Provincial Paper Mills, Toronto, spent the Christmas holiday period with relatives in St. Thomas.

S. F. Duncan, treasurer of the company, was at Kalamazoo, Mich., for a short visit.

Mr. Robinson, representing Andrew Whyte & Son, Limited, of the Bothwell Paper Works, Edinburgh, Scotland, is calling upon the trade in Toronto and other cities.

Harry Hooke, who, for several years has been with Brown Brothers, wholesale paper dealers, Toronto, has been appointed manager of their paper and book binders' supply department, succeeding Walter Dickinson, who has taken an interest in the Aubrey Hurst Company, Toronto.

Harry L. Muir, late with Brantford Stationers, Limited, Brantford, and formerly with the Don Valley Paper Mills, has been appointed a member of the sales staff of the Canadian Pad and Paper Company, Toronto, and will cover Ontario, Quebec and the Maritime provinces.

W. S. Johnston, head of the widely known firm of W. S. Johnston & Co., 106 Adelaide street west, Toronto, and Mrs. Johnston, celebrated their golden wedding at their home, 558 College street, on Christmas day, and received the congratulations of many friends in the paper trade.

Fred L. Ratcliffe, Toronto, who is head of the Ratcliffe Paper Company, has resigned the presidency of the Thornhill Golf and Country Club as he intends taking a trip to the Old Country during the coming year and will be absent several months.

S. F. Arnoldi, of the Canadian Paper Board Co., Montreal, was a caller upon the Toronto trade during the past week.

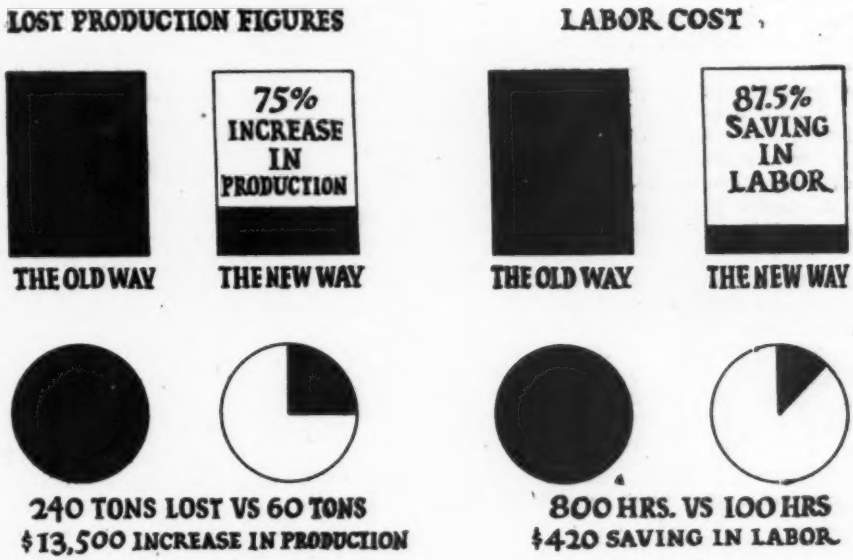
Fred S'Renco, of the M. A. Brown Paper Box Company, St.

(Continued on page 36)

BELOIT REMOVABLE FOURDRINIER [patented]

Here are the Facts

The Old Way vs The New in Changing Wires



$13,920 Added Annual Sales and Savings

The advent of the *Beloit Removable Fourdrinier* marks a distinct advance in the science of paper-making efficiency. By taking the following proved figures in changing wires we get the results noted above:

Four hours required on old type Fourdrinier, less one hour required on "Beloit Removable" means 3 *hours saved* on each wire change.

Twenty wires changed per year means 60 *Production Hours* saved per year, or 180 tons per year. 180 Tons at $75.00 per ton = $13,500.00 *Increased Production.*

Ten men on average required to change wire on old type Fourdrinier, or 40 men hours. Five men only required on "Beloit Removable," or 5 Man-Hours. 25 Man-Hours saved per change—20 Changes—700 Hours—at 60c per hour = $420.00 *Labor Saving.*

The above savings are but a portion of the labor- and time-saving features of the "Beloit Removable." Additional savings are made by the elimination of heavy lifting, and by the fact that breast roll, table and wire rolls and suction boxes are not disturbed. No damage to rolls or bearings is possible. No grease or oil touches the wires. No possibility of crimped wires.

Here indeed is the paper-maker's dream come true. It will pay you to investigate this remarkable invention.

WRITE FOR SPECIAL BULLETIN GIVING COMPLETE FACTS

The "BELOIT WAY" is the Only Way

Beloit Iron Works — **Beloit, Wis., U. S. A.**

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS

Established 1858

BIDS AND AWARDS FOR GOVERNMENT PAPER

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., January 2, 1924.—The Government Printing Office has received the following paper bids for Bristol Board, basis 22½ x 28½—100 lb. in 20 inch rolls of approximately 400 lbs. each,—25,000 lbs., each of gray, green, melon, pink and yellow: Carter, Rice & Co. Corporation $.55 per lb; Reese & Reese, $.05219; R. P. Andrews, $.0524; Whitaker Paper Company, $.0549; Dobler & Mudge, $.055; The Broderick Paper Company, $.056; Barton, Duer & Koch Paper Company, $.0544; Mathers-Lamm Paper Company, $.0544; American Writing Paper Company, $.0643; Explosive Chemical Company, $.06239; George W. Wheelwright Paper Company, $.09.

The Government Printing Office also received the following bids for 80,000 lbs. of chip board, 26 x 38 No. 50: T. A. Cantwell & Company $44.00; (per ton less 2 per cent); Consolidated Paper Company, $51.00; La Fayette Box Board and Paper Company, $45.00; The Broderick Paper Company, $47.50; The Republic Paperboard Company, $43.15; Knickerbocker Supply Company, $49.60; Philip Rudolph & Son, Inc., $46.55; The La Boiteaux Company, $43.60; Reese & Reese, $45.10; Dobler & Mudge, $45.00; Barton, Duer & Koch Paper Company, $43.15; Mathers-Lamm Paper Company, $46.13; United Paperboard Company, $42.90; Whitaker Paper Company, $42.71; Explosive Chemical Company, $54.78.

For 36,000 lbs. binders board, No.'s 20, 25, 35 and 45, various sizes, the bids were as follows: Dobler & Mudge, $97.00 per ton; Mathers-Lamm, $86.85; Whitaker Paper Company, $87.90; C. B. Hewitt Brothers, Inc., $82.50; Kerr Paper Mills, $91.00; The Pratt Paper Company, $98.00; Reese & Reese, $87.34; The Republic Paperboard Company, $76.80; The La Boiteaux Company, $80, and $99.00; Consolidated Paper Company, $90.00; Barton, Duer & Koch Paper Company, $88.75; The Westport Paper Company, $75.00; The Holliston Mills, Inc., $82.00.

The Government Printing Office also received the following bids for 550,000 lbs. white machine finish printing paper, No. 1, basis 25 x 38—35, in 38 inch and 48 inch rolls: Allied Paper Mills, $.6405 and the Bryant Paper Company, $.0692; Old Dominion Paper Company, $.06289; R. P. Andrews Paper Company, $.0594; Dobler & Mudge, $.065 and Kalamazoo Paper Company, $.0675; Reese & Reese, $.6345 and The Champion Fibre Company, $.0588; Perkins-Goodwin Paper Company, $.0632; The Broderick Paper Company, $.0644; Barton, Duer & Koch Paper Company, $.0615.

Bids for 8,000 lbs. writing paper, machine dried, No. 16, in 8½ inch rolls of approximately 130 lbs. each; 4,000 lbs. white and 4,000 lbs. blue, were as follows: R. P. Andrews Paper Company, $.13 and $.14; Reese & Reese, $.08945 and $.09915; also on 1,200 lbs. fine white glazed bond paper, 17 x 22—24, bids were Reese & Reese, $.2680 and Whitaker Paper Company, $.27; Dobler & Mudge, $.33; R. P. Andrews Paper Company, $.32; Old Dominion Paper Company, $.2774; Osburn Paper Company, $.2795.

For 9,600 lbs. smooth granite cover paper, 20 x 25—48 flat, bids were: R. P. Andrews, $.0924; Graham Paper Company, $.1075; Old Dominion Paper Company, $.0999; Knowlton Brothers, $.0891; Thomas Barrett & Son, $.10; Mathers-Lamm, $.0965; Dobler & Mudge, $.0975; The Whitaker Paper Company, $.0994; Reese & Reese, $.096575; The Broderick Paper Company, $.0964; Barton, Duer, & Koch Paper Company, $.094; American Writing Paper Company, $.0916; R. A, Cauthorne Paper Company, $.1245; Manhattan Paper Company, $.025 less 2 per cent F. o. b. dock N. Y.

Bids for 7,500 lbs. white Antique printing paper, 25 x 38—50 were: R. A. Cauthorne Paper Company, $.075; American Writing Paper Company, $.0747; Maurice O'Meara Company, $.0715; The Broderick Paper Company, $.0695; Reese & Reese, $.0752; The Whitaker Paper Company, $.066; Old Dominion Paper Company, $.078; Dobler & Mudge, $.07; Bryant Paper Company, $.0787; Allied Paper Mills, $.0675.

On 120,000 lbs. white newsprint, 40 x 48 inch, on 24 x 36—32 basis: Import Paper Company $.04 per lb.; Whitaker Paper Company, $.0439; Beaver Pulp & Paper Company, $.0572 and $.0508; R. P. Andrews Paper Company, $.0437 and International Paper Company, $.0456, $.0481, $.0506, $.0456; Graham Paper Company, $.0456.

The Government Printing Office will receive bids on January 9 for 7,500 lbs. (7,500 sheets) of 26 x 38 No. 50 lined strawboard.

The Printing Office has received bids for the following: 3,920 lbs. Ash Gray Cardboard, 22 x 28—196: Dobler & Mudge, $42.00 per M sheets; R. P. Andrews, $44.00; Carter, Rice & Co. Corporation, $43,35 and $45.50; Whitaker Paper Company, $45.61; Mathers-Lamm Paper Company, $47.50; The Broderick Paper Company, $43.20; and 20,800 lbs. coated cover paper, 26½ x 41—104 in cases; Allied Paper Mills, $.095 and $.0975; The Whitaker Paper Company, $.0849; Dobler & Mudge, $.09 and $.10; Thomas Barrett & Son, $1065 and R. P. Andrews, $.142; Graham Paper Company, $.108.

The Government Printing Office will receive bids on January 9 for 7,300 pounds (100 reams) of 32 x 48—73, white S. & S. C. printing paper.

ONTARIO LOOKS FOR MORE ACTIVITY

(*Continued from page* 34)

Louis, Mo., called upon the members of the trade in Toronto during the last few days.

The Royal Commission on Pulpwood will shortly resume its hearings in Ontario and will hold meetings at Port Arthur on January 14 and 15; Sault Ste. Marie, January 18 and 19; North Bay January 21 and 22 and Cochrane, January 24, 25 and 26, after which a month will be spent in the Province of Quebec.

The Ontario government recently sold four timber areas, three of which were in the township of Firstbrook and one in the township of Teck. The successful bidders were Norfolk & Rochester, of Haileybury, C. J. Price of New Liskeard, James Myers of New Liskeard and John Clark of Englehart.

John Firstbrook, president of Firstbrook Brothers, box manufacturers, Toronto, left recently for New Berne, N. C., where he will be wedded to Mrs. Emma K. Knowles during the present month.

E. C. Palmer Paper Co. Burned

DALLAS, Tex., December 29, 1923.—Damage approximating $150,000 was done when fire of undetermined origin wrecked the building and contents of the E. C. Palmer Paper Company, 407-9 Lacy street near the downtown industrial section, early December 15.

The fire was discovered after police had been summoned to that vicinity to investigate a report that burglars were believed to be in a building. Persons awakened by crackling glass in the burning building had turned in the call believing they had heard burglars smashing windows. Practically all available fire apparatus was called out before the blaze was declared under control.

W. M. Corley, manager of the company announced that the business will be re-established shortly, but said that so far no plans have been determined as to what location. Temporary offices have been opened by the company in the office of the Dorsey Company, 1000-02 Commerce street, near Poydras street.

The Great Northern Paper Company plant at Millinocket now has ample water to carry through the winter, the storage basins having been filled gradually, although early in the fall it was feared that the drought would continue, forcing a partial shut down of the plant, as was the case last winter for three months.

Famous Products Series No. 6.

MASTER ART Wall Paper

Sears-Roebuck and Co. Wall Papers *are made in* "NIAGARA BEATERS

The same policy that has made Sears-Roebuck & Company the tremendous organization that it is, the policy of selling high quality at an exceptionally low price, is reflected in their Master Art Wall Paper. Such a policy is possible only where manufacturing and distribution costs are cut as much as possible, without sacrificing quality and service. That is why Master Art is made in Niagara Beaters. No beater on the market has the speed of Niagara and with this speed Niagaras produce a better product at a lower cost.

Valley Iron Works Company

Builders of Pulp and Paper Making Machinery.

Plant:
APPLETON, WISCONSIN

New York Office:
350 MADISON AVENUE

Niagara Beaters

1. Use less power per ton of stock produced.
2. Occupy less floor space.
3. One Niagara does the work of two or sometimes three Holland Beaters.
4. Require fewer men to operate.
5. Save in installation costs.

Write today for further particulars regarding Niagara Beaters.

Obituary

Gustave Lindenmeyr

News of the death on December 27 of Gustave Lindenmeyr, for many years and until the year 1920 head of Henry Lindenmeyr & Sons, was received from Pasadena, Cal., last week.

Gustave Lindenmeyr was born in New York City on November 4, 1860. He was the oldest son of Henry Lindenmeyr, the founder of the house. After an ordinary school education, Gustave Lindenmeyr started his business career as clerk in his father's store, then at 15 Beekman street. He was admitted to partnership with his brother Henry in 1892.

Gustave Lindenmeyr was for many years the directing mind of the business to which he devoted the best period of his life. He never sought publicity, and, notwithstanding the importance of his position, was comparatively little known in the trade outside his close associates. He was a director of the Commonwealth Bank for many years.

A generous man of gentle and retiring disposition, Gustave Lindenmeyr will be missed by those who knew him intimately.

To Alter System of Forest Protection

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., January 2, 1924.—Destructive forest fires of the past few summers have determined the Provincial Government of Quebec radically to alter the system of forest protection, and legislation to that end will be brought down during the course of the present session. While the Government has hitherto done considerable in the matter of forest protection, the greater part of the work has been done by the various associations of limit holders, who engaged the rangers and pay them, though such men are given their powers by the Government. The Government makes a grant towards the cost of the work. While the new project has not been finally drafted the idea, as far as now known, is that the position of affairs will be reversed, namely, that the Government will take direct charge of forest protection, and the timber limit holders contribute towards the cost. The Government idea is that by means of such a change it will be possible to have a force of men who can be mobilized quickly for work in any part of the province. As the matter is now, each association looks after its own interests, and the minister has no authority to order men from one district to go to another district where a fire is under way. There have been instances of late where such power vested in the hands of the minister would have been of vital importance. The cost of the new system will not be much greater than the amount now paid out for protection. The interest of both government and limit holder is concerned. The trees belong to the government, even though under lease, and it is only when a tree is cut down that the Government is paid by means of the stumpage dues. Under the law the limit holder is in the position of any other lessee, namely, he must protect the property he has rented. That the time has come for a change in the system has been realized for some time by the government as well as by a good number of the limit holders. The Government is also concerned with the protection against fire of the vast unleased timber areas. Fires do not break out in such sections very frequently due to the fact that they are not so readily accessible as the forests closer in. During the course of last summer the Government demonstrated that it was capable of organizing an efficient forest protection system. Fearing that the rush of gold seekers in the Rouyn township would result in a series of fires, Hon. Mr. Mercier, minister of lands and forests, personally went into that country and organized a patrol system according to his own ideas, with the result that no fires were reported. Normally the entry of hundreds of prospectors into a new wooded country would mean forest fires and the success attained by Mr. Mercier's rangers is looked on as encouraging and indicating what can be done by the Government throughout the whole Province. Even under the government system of forest rangers to be inaugurated probably in 1924, lumber companies would not be prohibited from having men of their own to protect their limits and mills, but the general direction of the system would be under the control directly of the minister.

Finnish Paper Prices Low

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., January 2.—The Finnish paper exports of pulp and paper during October are discussed in the following report which has just been received by the Paper Division of the Department of Commerce from American Consul Davis, at Helsingfors.

The situation in the Finnish paper industry has been becoming more and more difficult each month during this year, owing it is said, not so much to the lack of demand as to the fact that prices are so low on many classes of paper that they do not cover production costs. Manufacturing for stock has practically ceased owing both to the varied demands of the buyers, which make it impracticable to carry large stocks, and to the fact that many mills still have on hand stocks produced in 1917 and 1918. Many mills have consequently diminished production and one or two have discontinued operations. Two machines are reported idle at the Jamsakoski and Myllykoski mills and one at the Mantta mill at the present time, while The Leppakoski Fabriks A/B, with an annual production of about 7,000 tons, and the Hovinmaa paper mill have closed down and discharged their workers. The basic cause for this depression is said to be the close competition on the part of Canadian, Norwegian, Swedish, Austrian, Czechoslovak, and German mills, whose production costs are said to be lower. Manufacturers report poor markets for all kinds of paper—kraft and wrapping, for which until recently there has been some demand, as well as for high-grade paper and news print, for which the market has been dull a long time. Increased sales, however, have been made in China and some recent inquiries have been received from Japan.

The Finnish Paper Mills Association states that its members exported during the month of October only 7,327 tons of paper as compared with 9,215 tons in September and 10,169 tons in August. The Kymenne Aktiebolag exported 4,536 tons of paper including 791 tons shipped to Russia through the Finnish Paper Office. Shipments by the latter during October totaled 2,500 tons. According to official statistics, the total amount of paper shipped from Finland during October amounted to 15,064 tons compared with 13,634 tons during September and 17,098 tons in October, 1922. The total exports of paper during the first ten months of this year has amounted to only 144,932 tons as compared with 160,892 tons during the corresponding period last year.

Exports of mechanical ground wood in October showed a considerable increase, although the market is still said to be dull.

The prospects for chemical wood pulp are thought to be better, although there has been no change in the situation yet. The exports of the Finnish Cellulose Association in October were reported as 14,208 tons, of which 9,953 tons were sulphite and 4,255 tons were sulphate. This is somewhat greater than the figure given in the official statistics which report the total exports for October to be only 13,003 tons, of which 9,119 tons were sulphite and 3,884 tons sulphate. According to the Finnish Cellulose Association more than half of the exports during October went to the United States and England, the former taking 2,670 tons of sulphite and 1,769 tons of sulphate, and the latter 3,990 tons of sulphite and 889 tons of sulphate. The total exports of chemical pulp from Finland during the first ten months of this year have amounted to 172,843 tons (127,281 tons of sulphite and 45.562 tons of sulphate) compared with 151,104 tons last year (104,603 tons of sulphite and 46,501 tons of sulphate).

Established 1886

G.H.Q.

To confer with us before you buy your pulp will cost you nothing. To buy elsewhere without first consulting us may cost you a lot.

The ever recurring names of the largest paper mills on our contract records from year to year convinces us that the shrewdest buyers regard us as GENERAL HEAD QUARTERS for Bleached and Unbleached Sulphite, Kraft and Ground Wood Pulp.

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street
New York, N. Y.
U. S. A.

European Offices:
Stureplan 13,
Stockholm, Sweden

New York Trade Jottings

The Publicity Paper Corporation has moved to 406 West Thirty-first street with a new phone number of Chickering 7755.

* * *

Maurice London of the Tagerloeff Trading Company, sailed on Saturday last on the Swedish American liner *Kungsholm* for Gottenberg.

* * *

The Bauer Paper Box Company, Inc., of 440 Lafayette street, has gone into bankruptcy. The petitioning creditors' claims aggregate $1,066.

* * *

Jacob Erichsen and Johannes Westergaard have associated themselves with Messrs. Atterbury and McKelvey in charge of sales. This firm has just been appointed sole agents for A/S Tofte Cellulosefabrik of Christiania, Norway, makers of bleached sulphite.

* * *

According to a report received in this city during the week Supreme Court Justice Edward N. Smith will determine who was elected president of the International Brotherhood of Papermakers before January 1. The contestants in the controversy are M. H. Parker and Jeremiah T. Carey.

* * *

Frank Aurand, long identified in the paper industry, and for a number of years with D. S. Walton Company, has just joined the sales force of the Roller Paper Company at Wilkes-Barre, whose business has grown immensely during the past year. The Roller Company carries a very complete stock of Fine Printing Papers, Coarse Papers, Novelties and Stationery.

* * *

John J. Spinelli, who has been associated in business with Atterbury & McKelvey at 145 Nassau street, New York City, for the past five and a half years, has resigned and started in the paper mill supply business for himself at 15 Park Row, New York city, telephone Barclay 1158-1159. Mr. Spinelli is widely and favorably known in the trade, with whom he has had large dealings for many years, and we wish him the deserved success in his own business.

* * *

The Reading Paper Mills, Reading, Pa., have opened a New York office in room 1126 of the Canadian-Pacific Building. Telephone: Vanderbilt 7348. Edwin D. Peck, who has had many years' experience in the New York territory, is in charge of this office. The Reading grades have been manufactured for fifty years but they have never before been represented in Nw York city. Mr. Peck is well known to the trade, and expects to co-operate with them in pushing the sale of Reading Rag Papers.

* * *

Roy Mills, president, and Joseph Kaster, vice-president of the Portland Pulp and Paper Company, with offices in the Title and Trust Building, Portland, Ore., were in New York during the week and will visit other eastern points to buy machinery for the new kraft pulp and paper mill to be established by the company at North Portland, a suburb of Portland. Other officers of the company are N. J. Sykes, secretary, and U. G. Boyer, treasurer. The company will start the work of construction as soon as Messrs. Mills and Kaster return from the East. The plant will consist of a sulphate pulp mill having a capacity of about 60 tons and a 160-inch Fourdrinier kraft paper machine to be run at 800 to 1000 feet per minute and having a capacity of about 55 tons. An experienced kraft paper maker from Sweden has been engaged as manager of manufacturing. As this is the first kraft paper mill to be established in its section, the prospects for the new venture are considered unusually bright.

Recent Incorporations

Richard Bauer & Co., Manhattan, New York, paper products. Capital, $75,000. Incorporators, R. Bauer, L. A. Crafts, F. G. Marks. Attorneys, House, Grossman & Vorhaus, 115 Broadway, New York.

Bacher & Kaplan, Manhattan, New York, paper boxes. Capital, $15,000. Incorporators, D. Bacher, S. Kaplan, L. Kaufman. Attorney, M. L. Kane, 50 Court street, Brooklyn, N. Y.

Mogul Paper Company, Manhattan, New York. Capital, $1,000. Incorporators, J. Zitenfield, J. Singer, C. Jacobs. Attorney, S. J. Siegel, 276 Fifth avenue, New York.

Harper Paper Company, Mineola, New York, 100 shares preferred stock to 600 shares, of which 500 shares are preferred, $100 each, and 100 common, no par value.

Capital Increases

American Coated Paper Company, Pawtucket, Rhode Island, from $50,000 to $150,000.

R. P. Andrews Paper Co. Sells Building

[From our regular correspondent.]

Washington, D. C., January 2, 1924.—Announcement has just been made here of the sale by the R. P. Andrews Paper Company of its large building on Thirteenth street to the Chesapeake & Potomac Telephone Company for $300,000. The firm has occupied the building since its erection in 1913.

At the same time announcement was made by Ross P. Andrews, of the establishment here of one of the largest wholesale plants in the southeast, representing an investment of approximately $500,000. In addition to the company's present warehouse in the southeast part of town, it is proposed to erect a new building adjoining it at a cost of $250,000, the two buildings giving the paper company the largest warehouse in the District of Columbia.

In connection with the moving of the Andrews firm, it is stated that the company will discontinue its retail trade, confining its activities to the wholesale trade.

Washington is logically a distributing center for the southeast, according to Mr. Andrews, whose firm represents some of the largest paper mills in the world. He pointed out that Washington has the rail and water advantages that are found in Baltimore, with the additional advantage of a shorter haul to points in adjacent and nearby states, because of the fact that many shipments from Baltimore to the south must be routed through Washington as a terminal. In this connection, he pointed out that a movement is on foot to interest large plants in establishing wholesale houses here.

Boston Paper Stock Market Quiet

[From our regular correspondent.]

Boston, Mass., December 31, 1923.—During the past week two large board mills in New England were closed, and this, combined with a natural decline in demand at the end of the week, depressed prices of mixed papers and news. In the earlier part of the week purchases of mixed were made at $11.50, but later the market slid off to $11, and then to a $10.50 basis, although there was trading late during last week at $11 and $11.50 in some instances. The bulk of folded sold last week went at $17.50. One large consumer, who ceased buying mixed papers for a time, was actively interested. Purchases for this consumer's account were made at $17, and even $17 on cars here. Another large user of news, however, purchased a few lots as low as $16 toward the end of the week, as well as some at $16.50.

Soft shavings are stronger, with quotations firmly maintained at $3.25 for good packing. It was reported that a small tonnage of uncoated shavings recently changed hands at $3.50 on cars at New England points.

YALE CHAIN BLOCKS

Give Double Service Value in the Paper Industry

EVERY Yale Block is twice as valuable as it was twenty years ago.

Then labor was plentiful—now it is hard to get; and more costly. Many factors contribute to this labor shortage—the Yale Chain Block is the remedy.

Every dollar you invest today in labor-saving devices does double duty. You pay less for the services of a Yale Chain Block and I-Beam Trolley than ever before.

Make your labor productive.

Every time you handle a heavy load anywhere, raise it, move it and lower it on a Yale Chain Block.

Yale Chain Blocks are designed to stand heavy surge loads of careless usage. They are made strong enough for the emergency, and the steel parts take the strain and safeguard life and property. You cannot buy an unsafe Yale Block—from hook to hook a line of steel.

The Yale & Towne Mfg. Co.

Makers of Yale Products:
Locks, Door Closers, and Material Handling Equipment
Stamford, Conn., U. S. A.

Yale Made is Yale Marked

TRADE YALE MARK

Hoisting and Conveying Systems

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending October 31, 1923, and for the Ten Months Ended October 31, 1923, as Compared with Corresponding Months of Previous Year

IMPORTS—PAPER.

Paper and Manufactures of		October 1922 Quantity	October 1922 Value	October 1923 Quantity	October 1923 Value	Ten Months Ended October 31 1922 Quantity	Ten Months Ended October 31 1922 Value	Ten Months Ended October 31 1923 Quantity	Ten Months Ended October 31 1923 Value
Paper, except printed matter (total)		.....	$9,871,719	.....	$10,126,196	.....	$69,499,192	.....	$96,201,937
Printing paper—									
Standard news print	lbs..Free	236,019,186	8,336,705	228,847,445	8,580,090	1,665,316,057	58,401,015	2,169,952,774	81,078,382
All other, n. e. s.	lbs..Dut.	1,197,259	67,063	1,735,918	80,397	2,572,965	195,912	13,892,435	697,998
Grease proof and waterproof papers	lbs..Dut.	289,024	20,827	298,060	27,372	[1]289,024	[1]20,827	2,462,558	229,297
Wrapping paper	lbs..Dut.	8,574,633	382,773	9,112,830	403,385	49,727,435	1,992,884	75,274,930	3,360,955
Writing, drawing, bond, etc.	lbs..Dut.	286,949	70,281	322,717	52,508	[1]286,949	[1]70,281	2,985,771	565,010
Surface coated	lbs..Dut.	60,708	16,054	129,043	26,817	799,568	190,616	958,421	264,187
Tissue papers	lbs..Dut.	152,136	50,511	117,137	54,429	[1]152,136	[1]50,511	1,607,817	772,437
Paper boards—									
Pulp boards in rolls	lbs..Dut.	4,878,985	113,318	4,752,664	137,761	53,344,666	1,362,748	69,102,258	1,961,123
Other paper boards, n. e. s.	lbs..Dut.	2,792,457	82,821	1,549,115	60,521	[1]2,792,457	[1]82,821	20,574,458	604,477
Cigarette paper, cigarette books and covers	lbs..Dut.	657,051	394,296	869,974	221,703	.....	3,640,133	9,728,511	2,555,529
Photographic paper	lbs..Dut.	338,146	72,302	288,350	56,424	2,100,615	408,614	1,794,212	388,491
Hanging paper	lbs..Dut.	174,047	24,663	872,766	40,889	.....	514,304	7,269,382	417,332
Decalcomania, not printed	lbs..Free	56,999	11,899	28,757	9,204	.....	87,094	317,063	83,606
All other	lbs..Dut.	.....	228,206	.....	374,696	.....	2,481,432	.....	3,223,113

CRUDE PAPER STOCK.

Rags for paper stock	lbs..Free	38,388,823	546,859	36,136,901	625,502	242,399,693	3,766,335	327,036,429	5,834,582
Waste bagging, waste paper, etc.	lbs..Free	17,383,428	204,835	10,302,121	126,451	[1]17,383,428	[1]204,835	114,235,863	1,565,913
Old rope and all other paper stock	lbs..Free	15,556,267	517,148	6,463,775	323,552	135,637,925	3,397,651	85,025,393	3,845,620

WOOD PULP.

Mechanically ground	tons..Free	23,144	625,240	23,469	909,772	140,796	3,923,352	208,514	7,297,225
Chemical wood pulp—									
Sulphite, unbleached	tons..Free	41,282	2,013,354	39,289	2,349,888	296,847	15,590,791	384,079	21,819,407
Sulphite, bleached	tons..Free	22,885	1,904,716	20,357	1,880,136	164,841	13,955,071	208,756	18,732,363
Total sulphite	tons	64,167	3,918,070	59,646	4,230,024	461,688	29,545,862	592,835	40,551,770
Imported from—									
Finland	tons	3,701	215,511	5,703	385,041	25,900	1,340,392	62,995	3,637,129
Norway	tons	4,031	288,357	5,907	547,433	50,742	3,738,520	59,016	4,732,802
Sweden	tons	20,439	966,324	14,856	1,052,520	143,176	7,956,284	168,976	10,560,075
Canada	tons	32,337	2,246,770	26,212	1,799,777	218,458	15,194,015	247,191	17,898,059
Other countries	tons	3,659	201,108	6,968	445,253	23,412	1,316,651	54,657	3,723,705
Soda pulp	tons..Free	100	4,684	99	5,837	[2]200	[2]4,684	4,302	267,479
Sulphate pulp, unbleached	tons..Free	27,928	1,614,936	20,614	1,384,035	204,867	11,988,252	191,499	12,559,354
Imported from—									
Finland	tons	2,959	151,459	1,176	84,202	17,995	866,856	13,853	816,173
Norway	tons	1,276	60,101	1,734	105,024	6,079	311,745	7,892	459,796
Sweden	tons	7,644	370,662	2,350	159,121	66,064	3,380,148	56,145	3,429,691
Canada	tons	16,049	1,032,714	15,244	1,029,268	113,259	7,342,708	112,195	7,753,647
Other countries	tons	.....	.....	110	6,420	1,470	86,795	1,414	100,047
Sulphate pulp, bleached	tons..Free	5,536	320,671	1,161	92,000	13,339	836,984	14,521	1,019,057
Other pulp	tons..Free	377	8,685	.....	.....	[2]377	[2]8,685	735	42,440

CHEMICALS AND OTHER PAPER MAKERS' MATERIALS.

Color lakes	lbs..Dut.	16	23	.....	.....	[2]16	[2]23	2,263	2,872
Indigo—									
Natural	lbs..Dut.	.....	.....	.....	.....	11,348	12,790	6,522	2,670
Synthetic	lbs..Dut.	.....	.....	275	341	72,218	101,448	631	458
Dyes, colors, stains, etc.	lbs..Dut.	100	752	2,349	2,791	[1]100	[1]752	11,906	16,111
Colors or dyes, n. e. s.	lbs..Dut.	.....	.....	.....	.....	[1]2,553,576	[1]3,762,841	.....	.....
Colors, dyes, stains, color acids and color bases, n. e. s.	lbs..Dut.	237,832	290,861	286,256	475,547	[2]237,832	[2]290,861	2,687,251	3,643,939
Imported from—									
Germany	lbs.	67,851	66,763	113,685	169,054	.....	.....	1,280,177	1,539,044
Switzerland	lbs.	121,172	164,740	81,885	155,023	.....	.....	736,303	1,149,503
United Kingdom	lbs.	826	1,835	7,336	8,829	.....	.....	89,221	90,765
Other countries	lbs.	47,983	57,523	83,350	142,641	.....	.....	581,556	864,627
Casein or lactarene	lbs..Free	.....	.....	.....	.....	[1]10,321,399	[1]853,276	.....	.....
	lbs..Dut.	1,232,891	155,587	1,302,592	187,389	[2]1,232,891	[2]155,587	23,890,465	4,090,598
Kaolin, china, and paper clay	tons..Dut.	34,063	373,034	31,193	325,931	219,241	2,387,755	247,436	2,734,787

PULPWOOD.

Rough	Cord..Free	30,074	302,249	29,341	270,656	192,049	1,943,753	360,832	3,348,911
Peeled	Cord..Free	52,509	530,938	71,399	703,213	599,911	6,192,534	765,715	7,563,226
Rossed	Cord..Free	9,316	143,965	14,600	201,465	95,464	1,289,602	102,237	1,310,511

[1]Jan. 1 to Sept. 21. [2]Sept. 22 to Oct. 31.

(*Continued on page* 44)

Announcing An Actuating Movement With No Inherent Weakness

EVERY engineer knows that the vital mechanism of a recording thermometer or gauge is the movement which actuates the pen arm.

Almost all recording instruments are accurate at first.

But practically every instrument manufacturer has admitted that in time all movements weaken and become fatigued.

Pen arms refuse to follow the time arcs of the charts.

Movements become permanently "set."

Multiplying devices cause inaccuracies due to friction and lost motion.

Adjustments (some crude, some a little more refined) are provided to compensate for these errors.

Some manufacturers even specify limited "working ranges" within the chart scale.

Adjustments, limited "working ranges" and other makeshifts can *relieve for the the moment* but they can never *cure* the real trouble—*The Inherent Weakness of the Actuating Movement.*

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So important was the discovery—so far-reaching its consequences that although Foxboro engineers were positive of the result no announcement was made until the movement had demonstrated its superiority in every conceivable test of service.

We can now announce that the Foxboro Improved Helical Tube Movement overcomes all the so-called "necessary evils" of Recording Instrument construction.

It is permanent in calibration.

It does not weaken in service, It needs no adjustment.

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Pen arms always follow time arcs of charts. Accuracy within less than 1% of total scale reading is guaranteed.

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THE COMPASS OF INDUSTRY

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page 42*)

EXPORTS—PAPER.

Paper and Manufactures of	October 1922 Quantity	October 1922 Value	October 1923 Quantity	October 1923 Value	Ten Months Ended October 31 1922 Quantity	Ten Months Ended October 31 1922 Value	Ten Months Ended October 31 1923 Quantity	Ten Months Ended October 31 1923 Value
Paper, except printed matter (total)	.....	$2,020,108	.....	$2,118,841	.....	$19,869,557	.....	$21,564,871
Printing Paper—								
News Print Paper.....lbs.	2,260,546	108,674	2,246,965	109,884	44,972,477	2,015,495	26,310,702	1,330,691
Exported to—								
Canada	167,872	11,137	120,976	9,182	1,784,120	116,630	940,239	89,404
Central America	213,562	10,471	169,840	7,794	1,379,012	73,509	1,203,994	61,097
Cuba	1,226,303	54,416	1,091,400	47,008	16,155,472	662,363	16,200,584	743,395
Argentina	.....	.....	.....	.....	12,522,613	496,523	1,320	79
Other South America	250,919	13,364	152,149	7,730	4,162,161	198,815	1,648,148	86,216
China	.....	.....	.....	.....	1,447,517	59,747	54,862	4,521
Japan	.....	.....	3,040	242	2,649,646	160,380	686,011	45,338
Philippine Islands	313,489	14,049	384,352	18,758	3,024,519	138,309	3,721,255	182,364
Other countries	88,401	5,237	325,208	19,170	1,847,417	109,219	1,854,289	118,277
Book paper, not coated.....lbs.	1,835,530	193,126	1,651,988	210,027	23,446,685	2,258,375	22,940,797	2,590,838
Exported to—								
United Kingdom	26,652	6,413	66,524	14,908	431,085	94,858	514,508	114,551
Canada	258,825	27,894	260,808	36,617	2,157,488	236,775	2,014,612	261,438
Central America	50,892	5,068	52,147	6,868	324,892	35,672	720,307	81,633
Mexico	113,610	13,938	161,492	18,017	2,356,225	207,734	1,722,717	196,620
Cuba	346,535	34,600	446,402	50,515	4,446,934	427,172	6,287,603	671,194
Argentina	26,688	4,351	78,778	14,325	1,105,046	94,714	895,923	125,418
Brazil	188,485	19,925	81,135	9,787	1,349,312	147,955	802,357	89,533
Venezuela	30,688	3,546	17,199	1,867	614,809	67,801	292,334	42,005
Other South America	134,361	12,812	96,675	12,145	1,193,491	119,562	1,426,518	154,473
British India	40,831	4,299	15,193	1,561	215,944	23,986	213,794	24,157
China	76,090	7,297	227,515	25,020	1,942,371	167,229	1,939,795	208,746
Japan	104,749	11,942	3,717	523	3,197,996	237,163	1,910,744	177,979
Philippine Islands	269,200	21,198	30,756	2,734	2,168,789	204,442	2,714,217	250,311
Australia	132,343	15,147	65,817	7,949	826,602	81,369	796,141	100,377
Other countries	35,581	4,696	47,830	7,191	1,115,701	111,943	689,227	92,403
Cover paper.....lbs.	331,283	32,328	168,612	28,280	1,385,110	191,053	1,027,224	179,991
Greaseproof and waterproof paper.....lbs.	117,586	16,731	123,275	17,106	941,038	120,735	1,379,283	182,400
Wrapping paper—								
Kraft paper.....lbs.	19,554	1,689	83,816	7,920	638,537	53,637	657,562	60,580
Other wrapping.....lbs.	2,686,555	180,238	1,660,523	138,098	27,712,331	1,750,982	21,446,434	1,728,461
Writing paper, except papeteries.....lbs.	534,317	86,371	350,949	72,928	6,085,068	976,519	5,094,723	844,483
Surface-coated paper.....lbs.	281,209	43,331	335,243	47,432	3,037,841	459,779	3,415,063	521,525
Tissue and crêpe paper.....lbs.	235,788	70,917	291,955	81,714	2,117,066	559,524	2,699,758	683,739
Toilet paper.....lbs.	408,026	45,206	250,281	33,618	4,270,400	445,881	4,070,174	481,659
Paper towels and napkins.....lbs.	102,101	18,699	163,556	31,667	739,996	123,317	1,028,841	174,612
Bristols and bristol board.....lbs.	103,242	10,838	63,697	7,496	1,223,886	155,686	1,769,847	146,000
Paper board and straw board.....lbs.	3,651,122	167,736	4,911,220	210,440	41,393,277	1,719,186	47,800,072	2,276,811
Sheathing and building paper.....lbs.	682,812	23,880	391,387	19,777	4,836,953	177,690	2,905,834	137,061
Wall board of paper or pulp.....sq. ft.	983,704	35,272	1,347,686	46,417	8,913,577	324,632	12,510,370	464,880
Cigarette paper and books.....lbs.	107,569	38,597	36,296	11,085	654,099	251,529	449,122	150,925
Photographic paper.....lbs.	110,113	115,487	133,489	115,740	1,196,613	1,237,552	1,223,776	1,216,690
Paper hangings (wall paper).....yard	1,711,378	36,829	2,821,718	52,030	13,726,130	338,621	19,204,698	480,051
Paper bags.....lbs.	1,152,370	104,549	818,964	93,910	9,963,391	900,068	7,522,736	744,191
Boxes and cartons.....lbs.	647,245	79,225	1,114,465	117,333	7,742,935	628,304	9,397,828	893,865
Carbon paper.....lbs.	56,395	44,104	74,293	61,917	588,138	457,169	727,368	576,477
Envelopes.....lbs.	207,329	41,098	186,155	38,616	2,157,742	417,317	2,293,744	451,112
Playing cards.....packs	573,139	81,680	528,338	65,359	3,961,200	494,854	8,124,584	968,502
Cash-register and adding-machine paper.lbs.	91,320	9,053	114,049	12,328	717,604	78,834	951,216	102,979
Papeteries (writing paper in boxes)....lbs.	49,024	14,062	26,644	10,483	288,913	101,979	357,188	133,496
Other paper and paper products, n.e.s..lbs.	4,296,148	420,388	2,851,860	477,236	31,425,191	3,630,839	29,108,985	4,042,852
Books, maps, pictures and other printed matter (total).....lbs.	4,696,421	1,861,502	5,363,874	1,871,998	37,764,088	13,819,484	41,252,522	14,663,135
Books and pamphlets.....lbs.	2,374,442	882,732	2,817,118	986,769	18,070,334	6,422,012	21,836,745	7,225,715
Maps and charts.....lbs.	8,142	14,077	11,898	14,823	98,234	142,392	156,425	140,716
Music in books or sheets.....lbs.	56,932	35,077	69,157	32,866	391,658	263,584	472,721	292,123
Souvenir post cards.....lbs.	28,559	21,808	32,307	23,127	906,608	179,884	562,250	191,645
Lithographically printed matter, except postcards and maps.....lbs.	214,621	129,071	186,992	100,613	1,437,538	1,011,163	1,693,751	1,221,780
Other printed matter.....lbs.	2,013,725	778,737	2,246,402	713,800	16,859,716	5,800,449	16,530,630	5,591,156

WOOD PULP AND PAPER STOCK.

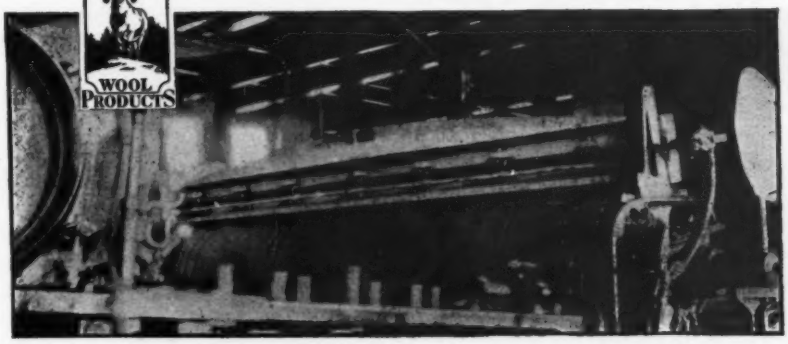
Sulphate wood pulp.....tons	456	34,729	1,136	65,211	14,021	676,851	12,308	717,002
Soda wood pulp.....tons	177	13,804	63	4,792	2,931	250,869	2,948	283,091
Other wood pulp.....tons	393	16,335	210	17,565	1,738	93,121	2,818	149,072
Rags and other paper stock.....lbs.	3,019,102	77,604	10,612,371	175,369	63,338,946	1,084,628	90,790,911	1,589,937

PAPER AND PULP MILL MACHINERY.

Paper and pulp mill machinery.....lbs.	1,075,281	129,040	338,806	91,118	6,456,946	1,520,096	10,526,398	1,775,973

This Photograph

of a KENWOOD GUARD BOARD in operation was taken on a time exposure of 1¼ minutes, with the machine running 750 feet per minute—NOTE THE ABSENCE OF VIBRATION.



THE KENWOOD GUARD BOARD

It feeds like the lead in a metal pencil, presenting a uniform edge at all points and at all times, INCREASING PRODUCTION and LENGTHENING LIFE OF JACKET.

It is a new application of automatic control to a common Paper Mill operation and results in—

GREATER MACHINE EFFICIENCY—A SMOOTHER and MORE UNIFORM RUNNING SHEET and ELIMINATION OF MANY CAUSES OF BROKE.

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F. C. HUYCK & SONS

KENWOOD MILLS
Albany, N. Y.

KENWOOD MILLS, Ltd.
Arnprior, Ontario, Canada

Editorial

Vol. LXXVIII New York, January 3, 1924 No. 1
HENRY J. BERGER, Editor

FOREIGN TRADE IN PAPER

The exports of paper for October, according to statistics which have just been issued by the Department of Commerce at Washington, D. C., and which are the most recent statistics available, show some expansion in the foreign demand for paper both as compared with the same time last year and with the preceding month of September. The exports of all varieties of paper for October amounted to $2,118,841, as compared with $2,014,834 for September and $2,020,108 for October of last year. The exports of all varieties of paper for the ten months ending with October were valued at $21,564,871, as compared with $19,869,557 for the same period in 1922.

The exports of news print, however, showed a slight decline for October, being only $109,884, as compared with $112,953 for September. The exports for October a year ago were $108,674, and the exports for the ten months ending with October were $1,330,691, as compared with $2,015,495 for the ten-month period ending with October, 1922.

The exports of book paper, not coated, for October were valued at $210,027, as compared with $237,487 for September and $193,126 for October of the previous year. The exports of book paper, not coated, for the ten months ending with October were valued at $2,590,838, as compared with $2,258,375 for the same period of the preceding year.

The exports of all varieties of wrapping paper for October were valued at $146,018, as compared with $167,390 for September and $181,927 for October of the previous year. The exports of all varieties of wrapping paper for the ten months ending with October were valued at $1,789,041, as compared with $1,804,619 for the same period ending with October of 1922.

The exports of paper board and straw board for October were valued at $210,440, as compared with $217,386 for September and $167,736 for October of the preceding year. The exports of paper board and straw board for the ten months ending with October were valued at $2,276,801, as compared with $1,719,186 for the same period ending with October of the previous year.

The exports of writing paper, excepting papeteries, for October were valued at $72,928, as compared with $80,139 for September and $86,371 for October, 1922. The exports of writing paper, excepting papeteries, for the ten months ending with October were valued at $844,483, as compared with $976,519 for the same period ending with October of the previous year.

The exports of cover paper for October amounted to $28,280, as compared with $10,163 for September and $32,328 for October, 1922. The exports of cover paper for the ten months ending with October were valued at $179,991, as compared with $191,053 for the same period ending with October, 1922.

The exports of paper bags for October were valued at $93,910, as compared with $72,682 for September and $104,549 for October, 1922. The exports of paper bags for the ten months ending with October were valued at $744,191, as compared with $900,068 for the same period ending with October of the preceding year.

The imports of all varieties of paper for October showed a considerable increase, the figures for the month being $10,126,196, as compared with only $9,664,829 for September and $9,871,719 for October, 1922. The imports of all varieties of paper for the ten months ending with October were valued at $96,201,937, as compared with $69,499,192 for the same period ending with October of the previous year.

The imports of standard news print especially showed a considerable gain for October, the figures for the month being $8,580,090, as compared with $8,288,882 for September and $8,336,705 for October, 1922. The imports of standard news print for the ten months ending with October were valued at $81,078,382, as compared with $58,401,015 for the same period ending with October of the previous year.

The imports of rags for paper stock during October were valued at $625,502, as compared with $543,052 for September and $546,859 for October, 1922. The imports of rags for paper stock for the ten months ending with October were valued at $5,834,582, as compared with $3,766,335 for the same period ending with October of last year.

The imports of ground wood for October were valued at $909,772, as compared with $830,462 for September and $625,240 for October, 1922. The imports of ground wood for the ten months ending with October amounted to $7,297,225, as compared with only $3,923,352 for the same period ending with October of the previous year.

THE OUTLOOK FOR 1924

As we enter 1924, neither a boom nor a general depression is in sight is the statement issued by the Guaranty Trust Company of New York as the result of a general survey of conditions just completed. The outlook, according to the survey, is rather for the maintenance of a sound middle course for business as a whole.

"But the vital question which business must now face is how far political influences and activities may affect it during the coming year. The apparently growing tendency to settle economic problems by political action, to inject the government into business fields and to promote class interests by organized political effort at the expense of the general interest, all present a certain menace to business progress, which cannot be ignored.

"Important business problems are before Congress for action, and if these problems are handled from the viewpoint of political, rather than business, considerations, this may well affect business prosperity. In the important fields of taxation and transportation particularly is this true. The dominance of political over economic considerations has greatly retarded the recovery of Europe, and may easily hamper the progress of the United States.

"In this connection, the legislative program of the Administration as outlined by President Coolidge in his message to Congress, is heartening to the constructive business interests of the country. He endorses the plan formulated by Secretary Mellon for a needed and feasible reduction in the national taxes and gives it priority among his legislative proposals. Relief from needless and ill-proportioned tax burdens would provide a wholesome stimulus to business enterprise.

"Necessarily, such a fiscal program precludes the granting of a general bonus to the able-bodied ex-service men. But the President's uncompromising opposition to a bonus rests not merely upon a desire for governmental economy, but fundamentally upon the conviction that there is no proper obligation to make such a distribution of the taxpayers' money.

"Nineteen hundred and twenty-three began with prices, industrial production, and the other usual indices of the trend of general business continuing a long-sustained advance. This expansion of activity was accomplished despite the presence of a number of unfavorable factors in the general situation. Among these was a marked lack of balance between wages in different employments and between prices of important commodities.

"Notwithstanding such hindrances, it became evident early in 1923 that production in many lines was attaining a menacing pace. There was widespread fear that a drastic reaction was impending. Instead of a general depression, however, there followed gradual recessions in industrial production and in prices. And there was no occasion for disturbance of the credit structure.

"Subsequently, production and distribution of commodities—with only moderate changes in the total employment of labor—have been maintained at levels for the most part above those for the corresponding, and generally prosperous, period last year. But the various branches of business have shared very unevenly in the year's prosperity.

"Readjustments, made necessary by the aftermath of the war and the reaction from the extravagant expansion of 1919-20, are still in process."

Finds Poor Color Match in White Papers

Paper that is supposed to be white is rarely altogether so. There is nearly always some tint to it, and manufacturers and users often experience considerable difficulty in obtaining a satisfactory match between paper of two different lots. In order to be truly white the paper would have to reflect equal proportions of all colors when viewed by daylight, but in nearly all cases there is some one or more colors which are not reflected as well as the others are. Measurements of such tints were made at the Bureau of Standards, Department of Commerce, the method used consisting in the determination of the relative amounts of blue, green, and red light reflected from 21 samples of commercial papers when viewed by daylight.

These samples were collected from various sources and included newsprint, printing, book, writing, bond, and ledger papers.

Out of the twenty-one, only two were found to be nearly white, the others being quite deficient in blue and less so in green. In order to overcome this difficulty it is often customary in paper mills to add a blue dye to the finish in the beater.

The attempt was also made to match the samples for color with the unaided eye, observations being made by seventeen individuals experienced in color work. There was practically no agreement among the seventeen as to the whiteness of the papers, which would seem to be an effective argument for the employment of some method more accurate than the unaided eye in the color grading of white papers.

These tests are described and the results given in Technologic Paper No. 244 of the Bureau of Standards entitled "A Measure of the Color Characteristics of White Paper." Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. The price is 5 cents.

Canadian Pulp and Paper Exports

The report issued by the Canadian Pulp and Paper Association states that the total exports of pulp and paper from Canada in November were valued at $12,197,577. This was slightly below the value for October exports but was an increase of $771,579 over November, 1922.

Exports of paper in November were valued at $8,373,679 and exports of pulp at $3,823,898.

Details for the various grades are as follows:

	November, 1923		November, 1922	
	cwts.	Value	cwts.	Value
PAPER:				
News print	2,063,900	$7,684,709	1,890,633	$6,733,078
Book paper	3,263	25,535	2,399	16,778
Writing paper	1,838	19,392	633	12,961
Other paper and Mnfrs.	.....	644,043	.....	468,029
	.....	$8,373,679	.....	$7,230,786
PULP:				
Mechanical	671,196	$1,206,940	659,215	$997,007
Sulphite bleached	269,095	1,091,222	253,713	1,074,864
Sulphite unbleached	275,748	765,240	527,962	1,205,781
Sulphate	244,010	760,496	290,911	917,560
	1,460,049	$3,823,898	1,731,801	$4,195,212

Pulpwood exports in November amounted to 68,943 cords valued at $739,943 which was a considerable decline from the previous month when the quantity exported was 102,138 cords valued at $1,078,707.

For the twelve months ending November 30, 1923, there was an appreciable gain in the value of pulp and paper exports over the twelve months ending November, 1922. Exports of paper in this period were valued at $92,589,172, compared with $74,319,656, an increase of $18,269,516, and pulp exports at $46,790,411, compared with $41,630,201, an increase of $5,160,210, giving a total increase in value of $23,429,726.

Following are details of exports for the twelve months ending November 30, 1922 and 1923:

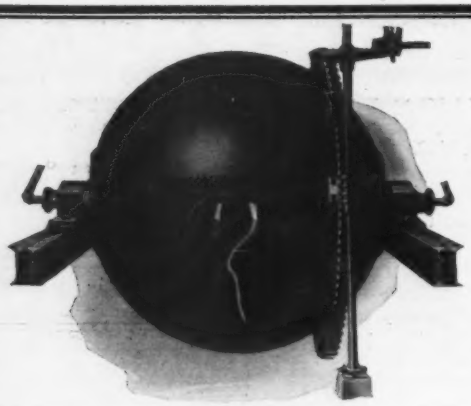
	1922		1923	
	cwts.	Value	cwts.	Value
PULP:				
Mechanical	6,443,012	$9,524,488	6,937,791	$11,707,962
Sulphite bleached	2,989,475	12,158,761	3,140,646	13,506,350
Sulphite unbleached	4,239,891	10,749,893	4,498,153	12,165,135
Sulphate	2,984,587	9,197,059	2,897,127	9,410,964
	16,656,965	$41,630,201	17,473,717	$46,790,411
PAPER:				
News print	18,733,376	$67,943,074	22,572,880	$84,595,637
Book paper	31,352	227,391	47,642	350,529
Bond and writing	12,773	138,469	23,237	240,091
Wrapping	359,403	2,733,521	407,193	3,046,989
Other paper and mnfrs.	.....	3,277,201	.....	4,355,926
	.....	$74,319,656	.....	$92,589,172

The exports of pulpwood in the twelve months ending November, 1923, amounted to 1,416,558 cords valued at $13,476,475, which was an increase of 45 per cent over those for the corresponding period ending November, 1922, when the quantity exported amounted to 971,976 cords valued at $10,003,526.

Ideal Conditions in Maine for Logging

[FROM OUR REGULAR CORRESPONDENT]

BANGOR, Me., January 1, 1924.—Freezing weather in Maine during the past week, coming before the snow and after repeated rains, has produced ideal conditions for woods operations in northern Maine. No such excellent conditions have been known for several years and satisfaction is expressed by the operators at the fine prospects. For several years, the snow has come before the ground has frozen, the swamps and ground being soft underneath, making hauling conditions bad. The fall rains have come gradually this year, allowing the water to soak into the ground. The near zero weather of a few days ago has effectively frozen the ground, making a firm foundation.



Globe and Cylinder Rotary Bleaching Boilers
Digesters
Riveted Steel Tanks
Flumes, Smokestacks, Penstocks, General Steel Plate Construction of every description

Rolling Steadily for 30 Years

A LETTER recently received from a Biggs Rotary user shows what **you** can expect to say 30 years hence if you also install Biggs Rotaries.

This letter, a voluntary expression of appreciation from Mr. W. W. Galloway, General Manager and Treasurer of The Hagar Straw & Board Paper Co. says:

"I thought you might be interested to know that thirty year ago to-morrow, the first sheet of paper went over the machines from this mill, and that the original rotary boilers that were installed by Mr. Ed. Hagar, who built the new mill at Cedarville, Ohio, are still in service. We use them constantly and find them efficient, and thought perhaps that the fact that they are still here and giving us results would be interesting to you, and we are very pleased to send you the information.

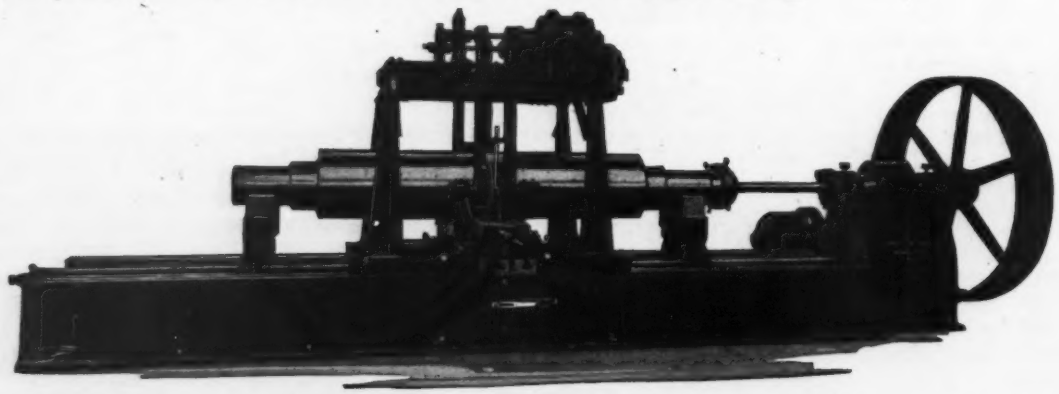
"Our Thirtieth birthday is reached with a good deal of pride and satisfaction in our many years of production and a reputation for quality products at all times. Your part in this has been no small one and we are very glad to pay tribute to the work of the material purchased from you so long ago."

Send for Biggs Booklet describing Biggs Rotaries for cooking and bleaching.

The Biggs Boiler Works Co.
Akron, 20, Ohio

LOBDELL

ROLL GRINDERS are the only machines of the kind fitted with automatic crowning device which develops a perfect crown without the use of a guide or former and repeated trying for the correct setting.



LOBDELL Calenders are equipped with Patent Electric Motor, Hydraulic or Ratchet Lift all operated from the floor.

LOBDELL Micrometer Calipers are handy and accurate.

LOBDELL CAR WHEEL CO. Est. 1836 **Wilmington, Del. U. S. A.**

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

PAPER MAKING FELTS*

By Jean Reginier

(Concluded from last week)

III. PURCHASE, CARE AND PRODUCTION FROM FELTS

When ordering a felt various points should be mentioned, which differs with different types of felts. We shall briefly enumerate them.

Jackets

There are two ways in which jackets can be ordered:

(1) By specifying the kind of fabric and the diameter and face of the roll. The felt maker will then supply a jacket of the required dimensions to entirely cover the roll and grip it firmly;

(2) By specifying the length of the jacket and its width when folded flat (Fig. 33).

Wet Felts

The safest way of ordering a wet felt (including smoothing press felts) is to submit a sample cut from a felt similar to the one which is desired; and if the sample is worn to any extent the weight desired per unit area should be given. In this way the felt maker can furnish the grade required without any guesswork. The sample submitted should be as large as possible, within reason; for it is extremely difficult to determine the threads per inch, weight per unit area, etc., of a diminutive sample, which at times is no larger than a postage stamp!

At times the felt of which a sample is submitted was not satisfactory, and the defects should be clearly set forth to give the felt maker a chance of correcting them in future deliveries.

If a sample cannot be supplied, the following information must be furnished:

Dimensions of the felt,
Weight per unit area,
Grade of paper manufactured,
Whether a felt washer is or is not used on the machine,
Whether marking should be avoided at the expense of openness of the felt, or whether the felt must be open, even though it marks the paper.

Dryer Felts

As nearly all dryer felts are of the same grade, it is usually sufficient to give the dimensions and the weight per unit area.

Miscellaneous

In the case of marking felts, a sample of the paper should be sent with the order, or else a sketch showing exactly what sort of markings are required.

Weights of Felts

The following weights per square meter of felt used in the manufacture of various grades of paper are given merely as an indication, for they vary within fairly wide limits.

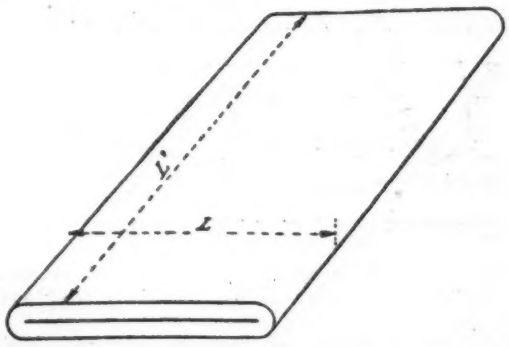


Fig. 33
Dimensions for Ordering a Jacket.

Jackets

3.2 to 4.2 kilos, according to the nature of the fabric.

Wet Felts for Coarse and Semi-Fine Papers

700 grams for straw paper,
700 to 750 grams for cardboard,
700 to 800 grams for wrapping paper,
700 grams for fast news machines,
550 to 600 grams for posters.

Wet Felts for Fine Papers

480 grams for ordinary writing paper,
475 grams for fine papers,
480 grams for superfine papers and ledgers,
550 to 600 grams for cigarette paper.

Smoothing press and last press felts vary from 1,100 to 1,200 grams for straw papers down to 600 to 800 grams for other

*Lecture delivered at the French School of Paper Making, Grenoble. Translated from *Le Papier* xxvi, 65-70, 189-194, 309-318, 437-445, January, February, March and April, 1923, by A. Papineau-Couture.

grades; and scome paper makers even use ordinary wet felts weighing as low as 450 to 500 grams.

Woolen dryer felts for coarse papers are made to weigh 3, 3.5 and 4 kilos per square meter, and for superfine papers they weigh about 2.8 kilos. Cotton dryer felts weigh from 2 to 2.5 kilos.

As for wet machine felts, they are made in weights of 750, 1,000, 1,500 and 1,800 grams per square meter.

Delivery at the Mill

It is always a good thing to examine a felt as soon as it is received at the mill. Errors occasionally happen, and it might at times be extremely awkward if they were noticed only when it became necessary to change felt. It is advisable to have at least one set of felts on the machine, one set in stock and one set on order.

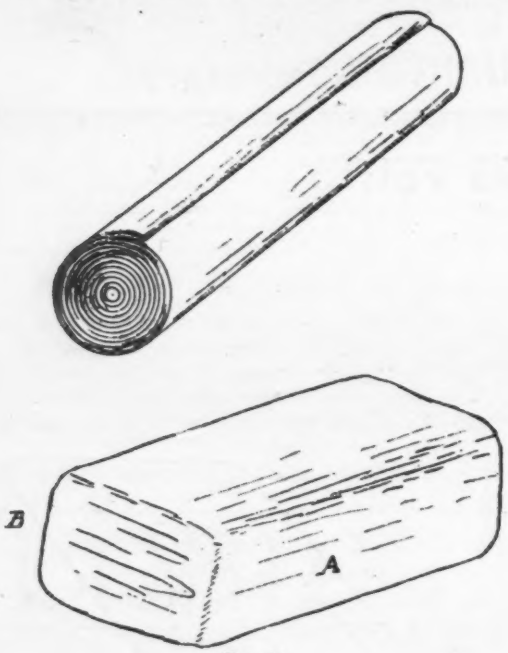


FIG. 34
Method of Packing Felts.

After a felt has been examined at the paper mill, it should be carefully repacked with naphthalene, so as to prevent it from being damaged by moths, taking care to put some in all the folds and particularly at and near the edges, such as A and B (Fig. 34), or on the outside when the felt is rolled up. The outer portions of the felts are the most accessible to the moths, and considerable damage can be done if they are not well protected. Use of tarred paper is very good. Of course it must be seen that there are no holes in the paper, and the felt should be packed quite tight.

The felts should be stored in a cool, dry, well ventilated room, for humidity injures the fibers. A clean and well lighted store room will go a long way towards protecting the felts from vermin.

When, for any reason, the felts are to remain a long time in storage, it is advisable to take them out and beat them every two months or so, to drive out any moths which might have found their way into them in spite of the naphthalene, and to wrap them up again with naphthalene.

Wear of Felts Through Mechanical Action

When taking off or putting on a felt it should be handled carefully, so as to avoid pinching it or catching it in projecting portions of the machine frame, thus tearing it. If such an accident should happen to an otherwise good felt, it is often worth while for the paper mill to send the felt back to the felt manufacturer who can mend it in such a way that the tear is practically invisible and the felt is just about as good as new.

Before slipping the felt on to the rolls or presses the journal boxes should be wiped clean, as a grease or oil spot prevents the felt from letting the water drain through at this point.

Under normal conditions a wet felt should wear out evenly over its whole surface. The filler, which comes in contact with the rolls, presses, suction boxes (when they are used), is the first to wear down. The nap is gradually worn off, the felt becomes gradually thinner, and more open, and when this reaches a point where there is not sufficient filler to prevent the warp from marking, the felt is worn out.

There are quite a number of causes which make the felt wear out faster, and unfortunately some of them are somewhat difficult to control. The life of the felt depends to a considerable extent on the conditions under which it is running on the machine, and if these are not right the life may be reduced as much as 50 and even 75 per cent.

As we have seen, when the felt is improperly guided, that is, when the guide line is not straight across the machine, it tends to shrink; and as a result the fabric is dislocated by the action of the guide roll and there is danger that it will wrinkle and be cut as it passes through the presses.

Stock frequently accumulates in front of the doctors of the presses, and if lumps fall down on to the felt they are carried through the presses and do considerable damage to the felt.

One of the very worst enemies of felts is excessive tension. Each felt is driven by a heavy press roll, and it acts as a driving belt for all the stretch and felt rolls around which it passes. Each one of these rolls, and also the felt-washer rolls which very seldom have a separate drive, acts as a brake on the felt; and the suction boxes act likewise. As a result, the felt is under a very considerable tension, which reaches a maximum just in front of the press roll which drives the felt. The friction of the rolls should therefore be reduced to a minimum by proper lubrication of the journals and use of ball bearings, and by equipping the felt washer with a separate drive, which will make so much less work for the felt.

If the two ends of a press roll are unequally weighted practically the whole work is done by the portion of the felt under the more heavily weighted end of the press. Needless to say that no felt is made to stand this sort of treatment, and unless the defect is rectified the felt will very soon tear.

The number of rolls in contact with the felt should be as small as possible, and the suction in the suction boxes under the felt must not be excessive.

Felt washers which are equipped with beating blades (Fig. 35) cause considerable tension at the point where the felt is beaten. So that when the felt is old and worn it is liable to tear at this point. It is true that there are automatic stretch rolls; but these generally work to take up any slack formed when the felt stretches, and very often they do not work in the opposite direction to decrease the tension when it becomes excessive. Denver Coppage, chief engineer of the Pusey & Jones Co., recommends mounting the stretch rolls on springs near the felt washer so as to avoid excessive tension.

There is a minimum tension for felts, under which they do not run satisfactorily. For if the tension is too low the rolls cannot be properly driven by the felt, and moreover the latter will sag when carrying the sheet.

The blades of the felt washer are usually made of wood. They are highly polished and quite smooth when new; but in use they become rough and have a tendency to tear off the nap of the felt. And when it does not tear it off it generally flattens it down, which is also undesirable. A good plan is to have perfectly smooth

and round brass tubing instead of the wooden blades; they wear down evenly and are easily replaced when worn. The action is similar to that of beating a carpet, so that the felt should be struck on the dirty side, while a strong spray is played on the opposite surface.

Sometimes, owing to improper design or faulty operation of the dry end, it is necessary to weight one of the presses more than the other. This naturally causes uneven wear of the felts.

The lips and edges of the holes of the suction boxes should be carefully examined to see that they are perfectly smooth, for any sharp edge would very soon cut off the nap of the under side of the felt.

When the machine is to be shut down for a long period, the felts should be taken off, washed carefully, dried thoroughly, and

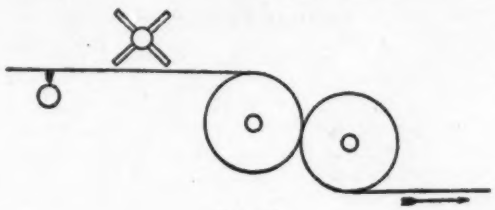


FIG. 35
Felt Washers.

properly packed with naphthalene. If they were left on the machine they would deteriorate at least as much as if the machine was running. If the machine is shut down merely for a few days, it is hardly worth while taking so much trouble; but the ventilation around the felts should be good to give them a good chance to dry out.

Drying cylinders should be stopped only after shutting off the steam and giving the cylinders time to cool down, otherwise the dryer felts are liable to be burnt.

Jackets are generally considered quite strong, probably owing to their thickness; but they should be handled carefully, especially when they are being stretched or when putting them on the machine. In many mills they are put on the stretcher until required, and are left in the machine room. This practice often results in their being damaged through the carelessness of the machine crew or by drip from rusty overhead piping.

Deterioration of Felts Through Chemical Action

Chemical agents contribute to the wear of felts as well as mechanical causes.

Any bisulphites remaining in the pulp when it comes in contact with the felt will attack the latter and decrease its life.

Presence of lime in the stock should be guarded against; for if the stock is alkaline it will full and harden the felt and prevent it from letting the water go through properly.

Washing the wire with dilute hydrochloric acid frequently results in deteriorating the first press felt. For if the wire is not very thoroughly rinsed after an acid wash, on starting up the machine the paper will carry some of the remaining acid on to the felt causing the fiber to disintegrate.

Finally, iron sulphate is sometimes used instead of aluminium sulphate; and the iron salt on being deposited on the felt is oxidized and interferes with its draining qualities.

Felts suffer less when the water and the surrounding atmosphere are cool, as an increase in temperature generally increases the rate of chemical reaction.

Each one of the various causes which we have enumerated can act alone and be sufficient to cause an appreciable deterioration of the felts; but as a rule the action of each one of them is so slight as to appear negligible. However, several or all generally come into play simultaneously, and the sum total of their actions is quite appreciable. The paper maker should endeavor to study them and analyze them, so as to be able to detect in any given instance which of the possible factors are actually the cause of the trouble, and then remove them.

It is a good thing to note the date when each felt is put on the machine, and also when it is worn out and must be replaced, so as to know the amount of paper produced with it. Of course the paper manufacturer may at times have considerable trouble in determining the true cause of the low production of a particular felt; for the machine crew sometimes hide their blunders by blaming the felt.

But paper makers can rest assured that, though undeserved criticisms may result in putting the felt manufacturer on the wrong track and may even cause him to make mistakes, he is always ready to co-operate with them to the fullest extent in an endeavor to try to turn out the most suitable felts for each machine, and to produce felts having a maximum output of paper.

GOVERNMENT PAPER BIDS AND AWARDS

The Government Printing Office has received the following bids for 89,550 lbs. sulphite writing paper, No. 16, white and yellow, in sizes 26 x 34½" and 24 x 38", respectively: Barton, Duer & Koch Paper Company, $.083 and $.093; Wilkinson Brothers, $.094; Reese & Reese, $.07245; R. A. Cauthorne Paper Company, $.068 and $.0705; The Broderick Paper Company, $.077 and $.087; The Champion Paper Company (Fiber), $.0728 and $.0732; American Writing Paper Company, $.08 and $.0825; R. P. Andrews Paper Company, $.0674 and $.0736; D. S. Walton Company, $.0819, $.0869, $.0844, $.0894, $.0869 and $.0919; The Aetna Paper Company, $.0793 and $.0818; Old Dominion Paper Company, $.07339 and $.07339.

The Government Printing Office also received bids as follows for 2,700 lbs. blue glazed bond paper, 22 x 34", No. 9: Dobler & Mudge, $.24 per lb.; R. P. Andrews Paper Company, $.2385; Old Dominion Paper Company, $.2469; American Paper Company, $.25; The Broderick Paper Company, $.2888.

E. I. Cassidy Gets Present

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., December 31, 1923.—Edward I. Cassidy, who has been superintendent of the Valley Paper Company since 1910, has resigned his position and been succeeded by Gordon R. Polson, who has been assistant superintendent for some time. The employees of the company presented him last week with a Morris chair as a token of their esteem, making the journey to his home in Turners Falls.

The Valley Paper Company has sold the Poquonock mill of the Hartford Paper Company, owned by them at Windsor, Conn., to George A. Leavitt, of Hartford, Conn. The mill has been stripped of its machinery and the sale price is said to have been $10,000. The mill is in a dilapidated condition.

George F. Fowler, treasurer of the Valley Paper Company, refused to discuss details of the sale, stating that it was a private matter.

Drying Code

Arrangements are being made to print the code and supply it in limited quantities on request to members free of charge. Reports of operation based on the code will be tabulated by the Drying Committee and the data supplied to those participating in furnishing it.

The Action of the Beater

"The Action of the Beater," by Dr. Sigurd Smith. Price, $3.60 per copy. The secretary has a few copies of this valuable work on hand and would be glad to supply it on receipt of order with remittance.

A MODIFIED SULPHITE PROCESS

On April 10, 1923, B. S. Summers of Port Huron, Mich., was granted U. S. pat. No. 1,451,125 for a modification in the sulphite process as generally carried out.

What the Invention Is Based On

The invention is based upon the discovery that if a proper amount of a reducing agent is introduced into the cooking acid considerably increased yields are obtained and the quality of the pulp is improved. The inventor found that the best results were obtained by introducing into the cooking acid a relatively small amount of hydrosulphurous acid ($H_2S_2O_4$), or of one of its salts, or of some substance which can react with the cooking acid to give hydrosulphurous acid. This acid is a powerful reducing agent, which, under proper conditions, is converted by oxidation into sulphurous acid, without undue precipitation of sulphur. When it is added to, or produced in, the liquor in which the wood is being digested to pulp, the proper reducing conditions occur to produce the increased yield and improved quality referred to above.

Sodium hydrosulphite, which is a commercial article and readily procured, is a suitable source of hydrosulphurous acid. When it is added to the cooking liquor the sulphurous acid in the latter reacts with the sodium salt according to the equation: $Na_2S_2O_4 + H_2SO_3 = H_2S_2O_4 + Na_2SO_3$. The hydrosulphurous acid gradually combines with the calcium sulphite during the progress of the digestion, the reaction being somewhat obscure, but in all probability a calcium hydrosulphite is formed according to the equation: $H_2S_2O_4 + CaSO_3 = CaS_2O_4 + H_2SO_3$.

Guards Against Decomposition

The presence of the calcium sulphite in the cooking liquor seems to have a pronounced effect in preserving the hydrosulphurous acid from decomposition, except in the manner above noted, and the hydrosulphurous acid in some manner affects the action of the calcium sulphite to increase the yield and improve the quality of the pulp, apparently by preventing the liquor from attacking the cellulose.

But, rather than add sodium hydrosulphite to the cooking liquor, the inventor prefers to form the hydrosulphurous acid by adding a metal, such as zinc or magnesium, which is dissolved by the sulphurous acid according to the equation: $Zn + 3H_2SO_3 = H_2S_2O_4 + ZnSO_3 + 2H_2O$.

The zinc is preferably used in the form of a powder, and it is convenient to sprinkle it on the chips as they are being charged into the digester. If some other metal is used, the amount taken should be chemically equivalent to the amount of zinc which would have been used. For practical purposes a pound of zinc may be taken as the equivalent of a pound of sodium hydrosulphite.

The quantity of sodium hydrosulphite or of powdered zinc to be used varies considerably in accordance with the results desired. Ordinarily 10 to 20 pounds may be used in a 10-ton digester holding about 22,000 gallons of liquor and about 30 tons of chips, the strength of the acid being 4 per cent SO_2, of which approximately 2.6 per cent is free and 1.4 per cent is combined. With such a charge 12 pounds of zinc dust have been found satisfactory. If the amount is increased above this, the pulp begins to get too tough to work well in the machinery utilized in reducing it, though for certain purposes where a tougher pulp is required the proportion of zinc (or of sodium hydrosulphite) may be increased somewhat.

The process can be used quite readily without making any change in existing pulping equipment, and is applicable to the production of both quick-cook, or Ritter-Kellner pulp, and slow-cook, or Mitscherlich pulp.

What Is Claimed

The following claims have been allowed by the United States patent office:

1. A process of producing sulphite wood pulp which consists in cooking the wood in a solution containing a bisulphite and hydrosulphurous acid.

2. A process of producing sulphite wood pulp which consists in cooking the wood in a solution containing a bisulphite and a material capable of producing hydrosulphurous acid.

3. A process of producing sulphite wood pulp consisting in cooking the wood in a solution of bisulphite containing a metal capable of producing with the bisulphite hydrosulphurous acid.

Preservation of Standard Fiber Samples*

BY MURIEL F. MERRITT

In 1920 the Paper Laboratory of the Bureau of Standards began to use fiber samples of known composition, preserved in the dry state and in water, for reference standards in estimating the fiber composition of paper. A comparison of the staining qualities of fibers preserved in this manner was recently made.

From 67 standard samples used by the Bureau in fiber analysis, 24 representative samples (all of the same pulps) were selected. The fibers included various proportions of rag, sulphite, soda, jute, manila, sulphate, and groundwood. The samples were kept in a dark place to prevent fading or discoloration, and in the case of the samples preserved in water, a few drops of formaldehyde were added to the water to prevent the growth of bacteria and molds. The longest time of preservation of the samples examined was three years.

All samples except the sulphite and sulphate mixtures were tested with the *Herzberg stain*, two solutions being used, one freshly prepared and the other two weeks old. Samples of the sulpuhite and sulphate mixtures were stained with the *Lofton-Merritt stain*.

The results may be briefly summarized as follows:

1. New stains gave the best colors, but in most instances there was only a slight variation from the standard color produced by the stain two weeks old irrespective of whether the samples had been preserved in dry sheets or kept in water. The slight difference observed may have been due to the variation in moisture content of the pulps.

2. A comparison of the samples in the two states of preservation shows that in most cases the fibers from dry sheets were stained darker than those kept in water. The samples composed of 100 per cent jute, 100 per cent manila, or mixtures of these fibers showed no difference in color reaction in both states of preservation. Rag and groundwood indicated a slightly lighter color after having been kept in water for three years. The greatest difference in color reaction was observed in the sulphite and soda pulp when kept in water. The color produced was pale blue, whereas the standard Herzberg blue is much darker. Sulphite or soda in water, when mixed with rag or jute-manila gave poor color contrasts. Sulphite and sulphate pulps which had been preserved in water three years indicated no color differentiations, but those which had been in water only twenty months showed color reactions lighter than the dry pulps. The sulphite and sulphate pulps in the dry state gave the most satisfactory results.

No evidence of deterioration was found in the various fibers preserved in water.

From these observations, it is recommended that standard fiber samples for occasional use should be kept in the form of dry sheets, and for frequent use as in routine analysis the samples should preferably be preserved in water. In the latter case, the samples should be replaced by a new pulp at least every two years, if color differentiations is of first importance in the fiber analysis.

*Published by permission of the Director of the Bureau of Standards of the U. S. Department of Commerce.

HOW TO RUN FELTS MOST EFFICIENTLY

The papers entered for the Prize Contest of Albany Felt Company were submitted without the names of their authors to a committee of paper makers. In the opinion of the majority, the following article by Harry Deffew of the Standard Paper Mfg. Co., Richmond, Va., was the most meritorious in a really close competition, and has been awarded first prize.—Editor Alfeco Facts, Albany Felt Company, Albany, N. Y.

Too many paper makers measure the efficiency of a felt by the number of days or weeks it has been on the machine, or by the tonnage made on a certain felt.

Of course, these items must be taken into consideration, but there are other features just as important. Are your felts delivering the goods while they are running that certain length of time, or making that certain tonnage? Are they removing the maximum amount of water from your paper, or are they leaving half of their work for the next felt or driers to do, thereby wasting coal? Are your felts helping you to get that desired finish, helping to eliminate the wire mark, or felt mark? All of these things must be considered regardless of whether it is a first, second, or third press felt, or if it is a fourdrinier cylinder, harper, or whatever type machine you have.

Get the Right Felt

I believe the first thing to do to obtain the highest degree of efficiency from a felt is to get the right felt. No man can do a carpenter's work with a blacksmith's tools, neither can a machine tender efficiently run coarse paper with a fine felt, or vice versa. No one would be foolish enough to go to those extremes, but there are many machines running to-day with not quite the right felt for their conditions.

I think the surest way to get the right felt is for the mill superintendent to acquaint the felt manufacturer with the mill conditions, and grades of paper, etc. With the aid of his past experience, the felt manufacturer will supply you with a felt to meet your requirements. There is no one who could help you more with your felt problem. The felt manufacturer is making felts every day to suit all kinds of conditions. There is no one who would be more conscientious in helping you, because it is to the interest of his reputation to supply you with a felt which will give you maximum service under your conditions.

Another important thing is the mechanical condition of your machine. Whatever the type of machine, there is so little difference as to the proper care of felts. Seeing that straight fourdriniers are in the majority, we will take them for example.

As far as felts are concerned, the condition of the machine starts at the couch rolls. With a suction couch roll, as far as I know, all that can be done to help felts is to supply suction enough (as far as is practical) to have paper as free from moisture as possible, before it reaches felts.

Where a Top Couch Roll Is Used

Where a top couch roll is used, a good quality couch roll jacket and an evenly fitting guard board should be used for the same purpose. Top and bottom couch rolls should be kept in perfect line, so that a uniform amount of water is squeezed from the paper the entire width of sheet, when top roll is weighted evenly on each side. If this is not taken care of, one part of the sheet will retain more moisture than another, causing felts to become dirty quicker at one place than another, resulting in too frequent washing.

Press rolls same as couch rolls should be kept in line and proper crown be kept on bottom rolls to insure an even pressure the entire width of sheet. Where bottom rolls are rubber covered, the rubber should not be too hard, or too soft. If it is too hard, you are not reaping the benefit of having a rubber roll, and will cause a too rigid pressure on felt, especialy if you turn a felt on machine or if felt should "run ashore" it would probably "chew" too easily. If rubber is too soft, it is liable to lose its crown and general dimensions, again, more especially where felts are washed and turned on machine.

All top press rolls should have snug fitting doctors, which should be kept oscillating, or else top roll will become covered with ridges, which will mean uneven pressing. Doctors should have backs high enough, so that broke cannot easily fall over top and cut felt.

Save-all pans should have splash boards high enough to catch all water splashes, these splashes will fill up felt, resulting in too frequent washing.

Should Be Perfectly Smooth

Felt rolls whether made of wood or brass or rubber covered, should be perfectly smooth and must be exactly the same diameter the entire length of roll, or felt will become slack in places by continually running over or around a place larger than balance of roll. Felt rolls should be placed so that felt cannot rub on another part of felt, shower pipe, or anything else, on its way of travel, or nap will soon be gone from felt.

Worm rolls should be used where they function their spreading effect to best advantage, to help keep the seam straight, thereby keeping felt open to its natural extent. Worms on worm rolls should be inspected frequently to make sure they are on tight.

All felt rolls rotate freely at all times, a lot of friction is caused by a lagging roll, and that friction will take all the nap from felt in time. The care of the felt itself should start the day it is received at mill. As soon as received all felts should be put into a felt storage room built for that purpose, which should be moth and rat proof and should be located where it is impossible to ever become damp. Felts should not be taken from their original package until put on machine.

Before Putting Felt on Machine

Before putting felt on machine, make sure all rolls, journals, and machine frame with which felt might come in contact, are free from dirt, grease, and oil. A little care now may mean the difference between a clean felt, good run, and long life, or a dirty greasy felt, a bad run, frequent washings, and short life of felt.

Be sure you put felt on right way of nap. If you should make a mistake, take the felt off, and change it, you might "get by," but you will never get efficient service from your felt. Once felt is on the machine, it should be straightened out and the stretch rolls slacked way back, felt should be evenly saturated with water, preferably with a shower pipe, because you can get a more even flow, then gradually tighten up felt. Great care should be taken not to get felt too tight, because after a certain tension, further stretching will not only strain, or even rupture some of the threads, but will actually close up the felt by making it narrow. The seam of the felt should be kept straight at all times, that means so much to the drying of the paper, as well as to the running of the felt itself, that a machine tender cannot afford to neglect it.

How Life of Felts Is Shortened

The life of many felts is shortened by the way they are washed, although a felt can be washed many times if judgment is used. Whether felt is washed on machine or on felt washer, I prefer a warm solution (not too hot) of specially prepared felt soap, which should be free from alkali. The strength of this solution should be according to directions coming with soap, or a person should use his own judgment, not to use any more soap than necessary to remove dirt from felt. Felt should be very slack while being washed, all soap and dirt with it should be thoroughly rinsed from felt, use a constant, generous supply of clean water, rinsing until water squeezed from felt is clear.

On no account should a machine tender or any one brush a

felt with a brush of any kind, while machine is running, to evade washing a felt for the time being. Although washing a felt is injurious to a certain extent, it is absolutely nothing compared to scratching the nap from a place here and there with a wire brush, etc.

Machine tenders can help the life of felts considerably by keeping oil and grease from being washed in on felts, from machine frame, and from oil and grease working in from roll bearings, by keeping guides working freely, so that felts cannot "run ashore" and wrinkle and cut.

PAPER STANDARDIZATION PROGRAM

By E. O. Reed, Chief of Tests, Government Printing Office, and Frank E. A. Larson, United Typothetæ of America

There has recently been so much published on the subject of the standardization of paper, in connection with the program of the Government Printing Office and the United Typothetæ of America, that it is deemed advisable to issue a definite statement relative to this work, in order to prevent further misunderstanding.

Paper is to the printer like rag and pulp to the paper maker, his chief raw material. And just as the paper manufacturer has classified his rags into definite grades, knowing the quality of each and what can be produced from each, so must the printer classify his raw material. The printer is not interested in paper-making methods or practice; but only in paper as a finished mill product and its suitability for various purposes. Paper standardization to him means a plan which will effect economy and maximum efficiency in the use of paper in the printing industry as a whole.

Increasing Competition

Increasing competition both among the printers and the paper makers requires a thorough understanding of paper qualities. At the present time there are no generally recognized standards of paper quality, each mill having set up standards of its own, those of one mill bearing no relation to those of any other. The natural result of this is confusion to the printer.

Investigation has developed that the correct use of paper has been generally disregarded by many of the large consumers of paper for printing. It has been found that forms or blanks of equal importance as records, subject to the same handling, are being printed on papers ranging from the highest grade of bond to a bogus wrapping. Not only is this an economic loss to both the printer and his customer, but it is also the cause of unfair competition among printers.

To overcome this condition it is necessary that the printer be better acquainted with the qualities of the various papers on the market to-day.

Undertaking Work of Testing

As consumers of eighty per cent of the fine printing papers manufactured in the United States, the Government Printing Office and the United Typothetæ of America are undertaking the work of testing, technically, all regularly mill stocked papers in order to determine those factors which indicate the quality and serviceability of these papers and to classify these factors with respect to their appropriate use. Through the co-operation of the paper manufactures these samples are being obtained and will be carefully tested microscopically, chemically, and physically. It is planned to make this investigation more thorough than any previous work of this kind.

All possible physical tests, such as tensile strength, folding endurance, bursting strength, and tear resistance will be made. It is fully appreciated that care and discretion must be exercised in rating the physical qualities of paper as determined by test, and that no one test can be relied upon to accomplish this. Nor can rag content be a sole basis for rating, since it is a well-known fact that rag-stock papers are not necessarily of the highest quality; some sulphite papers may be superior to certain rag-content papers. Great stress has been laid in the past on the fact that rag-stock papers are the only durable papers obtainable, and, if of high-grade rags, properly treated, this is true. But when one considers the large number of grades of rags used in paper making today, and the treatment, both physical and chemical, necessary to render them suitable, it is evident that rag content can be no absolute criterion. And it must also be remembered that there is the same wide variation in the quality of sulphite and chemical wood, and in the papers made from these pulps.

To Arrange in Large Groups

As a result of this work it is planned to arrange all papers, starting with bonds, ledgers and index bristols, in a few large groups, the papers in each group having on the whole the same general characteristics. Color, finish, and general appearance are distinctive mill characteristics, and no attempt will be made to classify these. The printer from his own experience already knows which papers are the most workable and economical in process and can satisfy his trade as to appearance, but he lacks information as to other essential qualities. With a technical classification of paper the true value of a paper may be determined and a standard system of paper selection made possible.

It should be definitely understood that this work is not an attempt to draw up formulæ for paper making, but to classify the papers on the market according to the properties they now possess or exhibit.

The printer is in need of a yardstick for measuring paper qualities and a standard method of tying up these qualities with the use requirements of the job on hand. When these needs have been fulfilled, a big step forward will have been made in the standardization of the printing industry—not the paper industry.

To Discuss Traffic Problems in New York

More than 100 business men from New York City and the surrounding district, and representatives of sixty trade organizations will meet at the Yale Club today, Thursday, January 3, to advise with the railroads in the solution of the traffic problems in this district. This is the first movement toward the organization of the Middle Atlantic Coast Regional Advisory Board, a permanent body to represent the shippers of this district in their relations with the railroads.

This board is to be one of the several regional shippers' boards being formed by the American Railway Association. It will include New York State, except the Niagara region, Eastern Pennsylvania, New Jersey and Delaware. The purpose of the New York board will be similar to that of the boards already organized in the Northwestern, the Central Western, the Trans-Missouri-Kansas, and the Southwestern Districts. It will bring all the important shipping interests together with the railroads to develop in advance the probable transportation demands of each region and the most equitable means of meeting them.

The American Paper and Pulp Association and the National Paper Trade Association as well as the traffic managers of a number of the representative New York paper concerns have been invited to attend the initial conference.

Dennon Paper Mills to Resume

[From our regular correspondent.]

Mobile, Ala., December 31, 1923.—It is announced by the Chamber of Commerce that the Dennon Paper Mills of this city, which have been idle for sometime, are about to resume operations.

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Special Papers and Boards

Parchment and Imitation Parchment. H. Postl. *Paper* 32, No. 10, 11-12 (June 27, 1923). Brief sketch of the manufacture of vegetable parchment and of its substitutes.—A. P.-C.

Do You Paste Papers? Jan Van Uitwerking. *Paper Ind.* 5, 615-618 (July, 1923). Discussion of the troubles encountered in sheet and roll pasting with hints on how to overcome them.—A. P.-C.

Marbling Paper. M. Rheinauer. Eng. pat. 196,098. In order that the paper to be marked may receive an even coat of preliminary sizing material, the size container has false side and bottom pieces that are kept in motion so as to agitate the size and ensure its distribution over the whole surface of the paper.—A. P.-C.

Paper Backings for Foils. Diamond Decorative Leaf Co. Eng. pat. 186,889. Paper to be used as backing for metal foils is coated on both sides with a solution of waterglass, with which castor oil or glycerine may be intermixed. These backings are easily removed after the foils which they protect have been stamped. —A. P.-C.

Quality Printing Paper. W. Grunewald. *Zellstoff u. Papier* 3, 161-164 (July, 1923). A discussion from the standpoint of printing.—J. L. P.

Manufacture of Millboard from Wattle (Mimosa) Bark. A. T. Masterman. Eng. pat. 196,689, Jan. 27, 1922. Millboard made from wattle (mimosa) bark or similar waste material of tanyards by the process described in Eng. pat. 182,884 but with the addition of a small quantity of casein, preferably dissolved in alkali, and about 5 per cent of a substance, such as calcium carbonate, which is capable of absorbing oil, is dried at about 80° F. and immersed in hot boiled linseed oil until a sufficient quantity has been absorbed. The impregnated board is then rolled, dried at 80° F., and, if a very hard product is required, baked at 180° F. If a flexible board is required a suitable proportion of creosote, e. g., half a gallon per hundredweight of pulp, is added during the beating operation. The resulting products are suitable for use as wall coverings, panels, floor coverings, etc.—A. P.-C.

High Test Container Board. Chauncey E. Cole. *Paper Ind.* 5, 773-774 (Aug., 1923). Practical operating hints.—A. P.-C.

Making Fat-Impervious Papers. *Wochblatt. Papierfabr.* 54, 1534-2535 (1923); *Paper* 32, No. 13, 7-8 (July 18, 1923). A discussion of the nature of the pulp which should be used, beating conditions, and operation of the paper machine.—A. P.-C.

Grease-Proofing Paper. W. L. Wright. U. S. pat. 1,449,718, March 27, 1923. A flexible grease-proof coating on paper is formed from dissolved casein, a small amount of ammonia and a vegetable oil, e.g., coconut oil, emulsified with water.—A. P.-C.

Process for the Manufacture of Carbon Paper. A. Haigh and H. R. Hart. Fr. pat. 555,560. Two or more sheets of paper are joined together in such a manner as to be easily separated when required, and the coating composition is applied to the two surfaces of the sheet thus formed.—A. P.-C.

Safety Paper. B. W. Smith, assignor to Todd Protectograph Co. U. S. pat. 1,449,453, March 27, 1923. A safety paper for negotiable instruments contains ultramarine and lead carbonate or other salt which will be acted upon by hydrogen sulphide and a small amount of sodium carbonate or calcium carbonate and is sized with manganese ferrocyanide solution.—A. P.-C.

Filter Paper. J. Baker Sons and Perkins, Ltd., and F. E. Thoms. Eng. pat. 189,562, Sept. 6, 1921. In the manufacture of filter papers capable of retaining very fine precipitates and colloidal matters, decolorizing carbons, such as are sold under the registered trade marks "Norit" and "Eponit," and preferably in a very fine state of division, are incorporated with the paper pulp.—A. P.-C.

Waterproofing Articles of Fibrous Pulp. W. H. Drake and J. J. Drake. U. S. pat. 1,456,370, May 22, 1923. Waterproof articles such as milk bottles, are formed of fiber coated with aluminum resinate. After the coated fibers are formed into the desired shape in a mold, air or other fluid heated sufficiently to melt the resinate is forced through the material.—A. P.-C.

Fiber, Its Qualities and Use. Harold E. Salton. *Pulp & Paper*, 21, 749-750 (July 26, 1923). Descriptions of the properties and merits of vulcanized fibers.—A. P.-C.

Protective Paper for Checks. Todd Protectograph Co. Eng. pat. 199,806. The paper is printed in various designs with indelible inks. Involved in the designs are words. These are inconspicuous until an attempt has been made to erase written matter, when the wording will be visible, but in a confused way so that the outline cannot be traced. The coloring of the design breaks up at the outline of the wording and causes the confusion.—A. P.-C.

Vulcanizing Rubber in Paper. F. Kaye. Eng. pat. 191,446. Addition to 167,935. A small quantity of a soluble alkali sulphide is added to rubber latex before the latter is diluted and mixed with paper pulp in the process described in the principal patent. On addition of acid to coagulate the latex sulphur is deposited for the subsequent vulcanization. With acid fibers, or paper sized with resin and alum, the addition of acid may be unnecessary. Sufficient sulphide to produce 1 to 2% of sulphur calculated on the rubber content is usually enough, but quantities to produce up to 10% may be added.—A. P.-C.

Blotting Paper and Cardboard. H. Postl. *Paper* 32, No. 20, 5-8 (Sept. 5, 1923). A detailed description of the manufacture of blotting paper, giving pointers on the best operating methods.—A. P.-C.

Paper for Player-Piano Rolls. Th. E. Blasweiler. *Wochbl. Papierfabr.* 54, 1524-1527 (1923). Tests are recorded on four German papers used for player-piano rolls. The weights of the samples varied from 63 to 66 g. per sq. m.; the thickness, 0.63 to 0.079 mm.; tearing length, 4695 to 5690 m.; per cent stretch, 1.85 to 2.31; and average folding endurance 45 to 136. A good roll paper should have a tearing length in the direction of the roll not under 6,000 m., and across the roll about 3,000 m.; the stretch should not exceed 1.80% and the average folding endurance not be less than 50. In addition the paper should be free from sand or gritty particles and should show a minimum tendency to change with variation in the moisture and temperature of the air.—J. L. P.

Vulcanized Fiber. Koln-Rottweil. Ger. pat. 376,384. *Papierfabr.* 21, 359-360 (July 29, 1923). Cotton linters are added in the ordinary process of making vulcanized fiber from paper.—J. L. P.

Manufacture of Waterproof Drawing and Writing Paper. Otto Lehmann. Ger. pat. 378,849. *Papierfabr.* 21, 383-384 (Aug. 12, 1923). Powdered stearin is incorporated into the paper by means of hot rolls.—J. L. P.

Carbon Paper. Heinrich Daniels. Ger. pat. 378,851. *Papierfabr.* 721, 384 (Aug. 12, 1923). A carbon paper is made by soaking thin, transparent silk paper with a dye and covering one side with a sheet of ordinary paper.—J. L. P.

Manufacture of a Waterproof and Cleanable Paper. Josepf

Mandl. Ger. pat. 377,559. *Papierfabr.* 21, 359 (July 29, 1923). Paper is treated with gelatin and then passed between rollers to bring about a stretching. After drying it is lacquered.—J. L. P.

Paraffine Papers. Fritz Muller. *Papierfabr.* 21, 330-331 (July 15, 1923). A general article on the paraffining of paper.—J. L. P.

Machinery

Fourdrinier Wire Seam. W. D. T. Green and United Wire Works. Eng. pat. 195,533, (Apr. 5, 1923). One or more wires are secured, by stitching or otherwise, to the under surface of the wire sheet on either or both sides of, or across the seam. The wires are preferably of such a thickness that they project to a plane beyond that of the wire sheet and its seam, and they are so disposed that they present a minimum surface at the point of contact with the suction boxes and rolls. It is essential that only a minimum amount of the wires project to the top surface of the fourdrinier.—A. P.-C.

Cleaning Felts. H. Jotsen. Eng. pat. 189,810. A number of paddle wheels are provided, each arranged in a separate compartment of the cleaning-liquid container. The paddle wheels are placed so as to act on the under (or non-operating side; and the cleaning liquid travels through the compartments on the counter-current principle.—A. P.-C.

The Fourdrinier Machine. Harry E. Weston. *Paper* Ind. 4, 1213-1221 (Dec. 1922); 1371-1377, (Jan. 1923); 1515-1519 (Feb. 923); 1663-1667 (Mar. 1923); 5, 91-95 (Apr. 1923); 315-320 (May 1923); 466-469 (June 1923); 622-625 (July 1923). A very detailed description of the various parts of the fourdrinier paper machine their function and operation.—A. P.-C.

Watermarking. G. Ebart. Eng. pat. 189,142. Sharply defined watermarks are obtained on the paper machine with papers of high strength by using a web of finer ground pulp as the second layer. The marking on the second layer which joins the coating will be sharp. A different colored web may be used to enhance the sharpness.—A. P.-C.

How Felts and Jackets Are Made. Walter S. Rooney. *Paper Ind.* 5, 640-642 (July 1923). Brief description of the manufacture of felts and of jackets.—A. P.-C.

Method of and Apparatus for Washing Paper Machine Felts. J. T. Ayers. Fr. pat. 553-916. Above the felt are four perforated rolls, one for washing solution and the next for cold water, side by side and at approximately the same level; the third for steam and the fourth for compressed air. The last two are respectively directly over a two compartment suction box which is under the felt and which can be moved vertically. To clean the felt, the suction box is raised in contact with the felt, and as the latter travels it receives the washing solution (only when it is very dirty), the cold water, then steam (which passes right through being drawn into the first compartment of the suction box), and finally compressed air which is drawn through into the second compartment of the suction box.—A. P.-C.

Device for Cleaning Dandy Rolls or Paper Machine Wires. *Societe Anonyme des Papiers Abadie.* Fr. pat. 553,198. A suction box is placed to extend across the whole width of the roll or wire and on the surface which comes in contact with the pulp, so as to remove any particles of the latter which may adhere.—A. P.-C.

Determination of the Power Consumption of a Ball Bearing Drier Cylinder. *Pulp & Paper* 21, 721-724 (July 19, 1923). Report of a test performed on the drier cylinders of a 166 inch tissue paper machine designed to run at 700 ft. per min., to make a preliminary estimate of the power consumption. It was determined in three independent ways: (1) by using a motor whose efficiency curve was known, and determining its power consumption; (2) by using a string wrapped around the cylinder and a weight to start the machine; (3) by getting the cylinders up to speed and then letting them coast; the time necessary to stop gives a direct indication of the bearing friction and the power consumption. The power consumption per cylinder was 125, 161.1 and 125.6 watts, respectively, by the three methods, average 136.4 watts. For the 17 driers the total would be 3.1 h.p.; and a conservative estimate of the total power required would be 5 h.p. If the gear drive were entirely eliminated in this case and the driers were driven through the felts, there would be a maximum tension in the felt of 200 lb., or a little more than a pound per inch of width.—A. P.-C.

Paper Slitting and Cutting. H. W. V. Wilson. Eng. pat. 195,805. In order to insure better manipulation of the various tools for slitting, cutting and perforating paper sheets, the levers carrying these tools are mounted on wheels capable of adjustment along threaded shafts.—A. P.-C.

Wall Paper Manufacture in a Model Mill. Herbert A. Hauptli. *Paper Mill* 47, No. 29, 38, 40 (July 21, 1923). A description of the processes used for the manufacture and printing of wall paper at the plant of Sears, Roebuck & Co., Chicago.—A. P.-C.

Steam and Power Waste in Boxboard Making. Morgan G. Farrell. *Paper Trade J.* 77, No. 3, 43-46 (July 19, 1923). A detailed description is given of the layout of a particular 30 ton boxboard mill, of the waste incurred, of changes brought about and of the consequent savings which were estimated at $10,340 a year for an outlay of $14,020.—A. P.-C.

Machine for Gumming and Slitting Paper or Board. Louis Chambon. Fr. pat. *Papier*, 26, 839-840 (July, 1923). The paper is first gummed, then passed over a large drying drum which is suitably heated, and is finally slit into rolls of desired width.—A. P.-C.

The Modern Paper Plater Drive. A. F. Paige. *Paper Mill* 47, No. 34, 36 (Aug. 25, 1923); *Pulp & Paper* 21, 747-748 (July 26, 1923); *Paper Trade J.* 77, No. 4, 56 (July 26, 1923); *Paper Ind.* 5, 947 (Sept. 1923). A description of the individual motor plater drive of the Norwood Engineering Co., with an outline of its merits.—A. P.-C.

Slitters and Slitting Methods in Relation to Mineral Content of Paper Furnish. James A. Cameron. *Paper Mill* 47, No. 34, 4, 12, 14 (Aug. 25, 1923). A description of the "shear cut", "top slitter," and "score cut" methods of slitting, showing the merits of the last.—A. P.-C.

Life of a Screen. Ernst Raimund. *Wochbl. Papierfabr.* 54, 2332 (Aug. 18, 1923). The life of a screen in general depends upon the ratio of its velocity to its length. Figures are given for the screen life in days for a variation of ratio from 1 to 12.—J. L. P.

Improved Fourdrinier Part for Paper Machines. Beloit Iron Works. Eng. pat. 198,729. The improvement consists in an arrangement whereby the table can be raised at the front and moved out laterally to facilitate the changing of the wire. During the lateral movement the rear edge of the table travels over rails. The front edge is first raised and moved over the rails, and then the back end. **No. 198,730.** The parts above and below the wire cloth are separable and the table can be lowered on to removable rails for the purpose of enabling the wire to be changed.—A. P.-C.

Cylinder Paper Making Machine. G. L. Bidwell. U. S. pat. 1,463,544, July 31, 1923. *Paper Trade J.* 77, No. 11, 50-54 (Sept. 13, 1923). The flow box is placed below the level of the stock in the vats and the stock is pumped from the flow box to the vats. Part of the stock is sent, by means of a three-way valve, to the riffle box. Part of the white water from the cylinders is sent to the pit as usual, and part is returned to the flow box to dilute the stock to a consistency of 0.5%. The piping, valves, and overflow partitions are adjustable so as to obtain and maintain any desired rate of feed to the vats and degree of suction in the cylinders.—A. P.-C.

Improved Paper Machine Slice. Samuel Milne. *Paper* 32, No. 23, 9, 19 (Sept. 26, 1923). The slice (or slices) is arranged above the breast board as near the edge of the board as convenient, say an inch or so beyond the center of the breast roll, but not less

than to the center of the breast roll. The head of pulp is thus supported by the breast board, while the apron has only to support the thin layer of pulp flowing on to the wire, and wear and tear on the apron and wire are reduced to an absolute minimum. The deckle frames are made with strong protections or flanges against which the slices rest, thus supporting the latter against the pressure of the pulp and preventing leakage. The slices can slide vertically in suitable grooves in the flanges. One or more supports are provided on a strong tube which also carries the ends of the deckle frames to prevent the slices from bending. To prevent leakage of pulp and ensure good edges, the slide frames are fitted with rubber or other flexible angle pieces secured by thin metal strips to the outer sides of the deckle frames and extending inwards and lying on the breast board and apron. The bottom edges of the deckle frames are bevelled to allow the pulp to come as close as possible to the deckle straps, and the deckle straps are arranged to bring them quite close to the frame. To enable minute adjustments of the opening between slices and breast board to be made to ensure uniformity of thickness across the machine the end of the breast board next to the breast roll is made flexible and adjustable vertically. The breast board may be stationary or it may be vibrated with the wire.—A. P.-C.

Calenders. J. Downham & Co. Eng. pat. 198,738. Instead of making the frames in one piece, the cheek is made in two, three, or more sections. The sections are prepared with slots and projections which fit into each other and are secured by bolts. In this improved form of construction there is less risk in the making of the castings (owing to the smaller weight) and greater facility in handling for machining, finishing and erection, and also in transportation.—A. P.-C.

Screens. F. Strauch. *Papierfabr.* (Fest u. Ausland Heft) 21, 78-83 (June 9, 1923). An empirical formula, $z = \frac{L}{v}$, is derived for screen performance. The result is expressed in kg. per sq. m., where L is the length of the screen in meters, v is the velocity in m. per min., and z is a numerical factor. Data bearing on the cost and life of screens are tabulated.J. L. P.

Washing Drum Performance. Rudolf Haas. *Papierfabr.* 21, 376-382 (Aug. 12, 1923). The following conclusions are reached concerning the correct performance of a washing drum. The apparatus for moving the stock should run slowly to economize on power. The washing drum should be forced to the limit of its capacity, and the stock density should be as high as possible, resulting in a saving of time and power.—J. L. P.

Suction Boxes for Paper and Similar Machines. A/B Karlstads Mekaniska. Ger. pat. 378,261. *Papierfabr.* 21, 334 (July 15, 1923). Rolls, with perforated surfaces, are located within the suction boxes.—J. L. P.

Barking Device. Rudolf Krczmar. Ger. pat. 375,241. *Papierfabr.* 21, 315 (July 1, 1923). The barking device consists of a drum-like arrangement.—J. L. P.

Removal of Dust from Paper Mills. Hoyer. *Wochbl. Papierfabr.* 54, 2133-2136 (July 28, 1923); 2201-2203 (Aug. 4, 1923). A description with sketches of a dust filter for paper mills.—J. L. P.

Utilizing Waste Heat from Digesters. Escher Wyss & Co. Eng. pat. 195,892. The digester is connected to a hot water tank by a separate conduit through which vapours from the digester are led to the hot wafer tank or to an intermediate tank before the waste liquor is discharged.—A. P.-C.

Filter Cylinder for Wood Pulp. A/B Karlstad Mekaniska Verkstad. Swed. pat. 50,529. (Jan. 4, 1922). A rotary cylinder encircled by filter cloth is divided into several chambers. The pulp is applied on that part of the rising side of the cylinder surface which is situated above the horizontal plane through the axis. A suction room is arranged inside the chambers in such a way that a certain filter chamber is not connected with the suction room before the pulp layer is formed on the surface of this chamber.—C. J. W.

Apparatus for Taking Up Wood Pulp. A/B Karlstad Mekaniska Verkstad. Swed. pat. 50,530. Jan. 4, 1922. Structural features regarding the roller pressing against the filter cylinder.—C. J. W.

Barking Wood in the Paper Industry. Fr. Grewin and G. Soderlund. *Svensk Pappers Tid.* No. 8, 1923; *Papier* 26, 1065-1076 (Sept. 1923). Comparative tests of Fresk and Karlstad barkers showed that the latter work best with straight, large and wet wood, and that under these conditions it has a large output and small waste of good wood. The waste is practically independent of the attendant, and the machine is very easy to operate. The output of the Fresk barker is less affected by variations in the quality of the wood and works as satisfactorily with dry, relatively small and knotty wood as with large and wet wood. The loss can be kept low, but depends largely on the barker man. A comparison of knife and drum barkers shows that the waste with the latter is about 0.5 to 2.0% and with the former about 6% (when properly operated); but about 20% of the wood from the drums must go to the knife barkers, so that the total waste in this method of barking is really about 2.5%. Drum barkers require much less labor. The bark from the drums has a much lower calorific value than from knife barkers and cannot be efficiently burned under boilers unless it is pressed, and even then it is not equal to bark from knife barkers. The power required from grinding drum barked wood is 14% higher than with knife barked wood, thereby reducing the production correspondingly. Sulphite produced from drum barked wood contains about 5% more knots than from knife barked wood (about 8.5% instead of 3.1% on the weight of pulp). Knife barking always gives a cleaner pulp than drum barking. A description is given of the Green Bay knife barker.—A. P.-C.

Chipping Wood for Chemical Pulp. A. K. Hinds. *Chem. Met. Eng.* 29, No. 11, 438 (Sept. 10, 1923). A brief description of the chipper and of factors affecting the quality of the chips.—A. P.-C.

A New Chip Screen. Anon. *Zellstoff u. Papier.* 3, 201 (Aug., 1923). A screen is described which consists of two concentric sieves running in the same direction but with different speeds. The power consumption is small and the chips are completely freed from knots and sawdust.—J. L. P.

Apparatus for Disintegrating and Breaking Pulp Laps. W. Porritt and R. J. Marx. Eng. pat. 202,575. (Aug. 23, 1923). The laps are fed on to a continuous apron which carries them between two feed rolls, whence they are caught between obliquely set revolving saw blades which engage with stationary knife edges or saw teeth. The laps are thus torn into irregular shaped pieces which fall into the hopper of a disintegrator fitted with revolving pins and stationary pins, which break up, knead and comminute the pulp into such small pieces that they can be handled by a pneumatic blower which blows them through pipe lines and air separators to the various beaters.—A. P.-C.

Pulp Screening. Robert B. Wolf. *Chem. Met. Eng.* 29, No. 11, 450-451 (Sept. 10, 1923); *Paper* 32, No. 22, 10, 18 (Sept. 19, 1923). An outline of screening systems and types of screens used for paper pulp.—A. P.-C.

Wood Pulp Concentrating Apparatus. A/B Mekaniska Verkstad. Swed. pat. 50,529. The apparatus consists of a filter which is made up of a wire gauze mounted on a horizontal rotating cylinder divided into compartments. A suitable suction device is provided inside the cylinder for creating a vacuum in each compartment in turn as it comes in contact with the mass of fibers. Suction is brought into play only after the deposition of the fibers has started and there is already a layer of fibers on the wire gauze.—A. P.-C.

Dusting of Rags. F. Hoyer. *Papierfabr.* 21, 393-397 (Aug. 26, 1923). The pneumatic handling of rags is advocated, and several different kinds of dust filters are briefly described.—J. L. P.

Suction Rolls for Paper Machines. J. M. Voith. Ger. pat. 378,957. *Papierfabr.* 21, 392 (Aug. 19, 1923). The perforated casing of the rotating suction roll is arranged opposite the stationary suction chamber in such manner as to insure tightness. —J. L. P.

Paper Machine Wires. G. E. Buchanan. *Paper Mill* 47, No. 44, 42, 44 (Nov. 3, 1923); *Paper Ind.* 5, 1250-1251 (Nov. 1923). An outline of the development of the wire weaving industry in the United States, and of improvements required to keep pace with the developments in papermaking practice.—A. P.-C.

The Vickery Paper Machine Felt Conditioner. F. W. Vickery. *Paper Mill* 47, No. 44, 32 (Nov. 3, 1923). Felt troubles on the machine are due to a relatively slight (about 25%) to dirt, but mostly to the action of the press rolls and other factors on the warp threads, which are flattened and take a permanent set, so that the area of the pores is reduced. This deterioration is continuous and cumulative, and the Vickery conditioner affords a continuous counteracting influence which keeps the felt in good condition.—A. P.-C.

Felts. A. H. Theurer. *Paper Mill* 47, No. 44, 18, 40 (Nov. 3, 1923); *Paper Ind.* 5, 1252-1253 (Nov. 1923); *Paper* 33, No. 3, 12, 17, 25 (Nov. 8, 1923); No. 4, 9-10, 23 (Nov. 15, 1923). Brief outline of the manufacture of paper machine felts and of the care which should be given them after delivery to the mills and on the paper machine.—A. P.-C.

Methods and Materials Used for Cleaning Papermaking Felts. George B. Haven. *Papier* 26, 1057-1062 (Sept. 1923). A study of the action of a large number of commercial "washing compounds" used for cleaning paper machine felts, showing especially the harmful action of free alkalis. Many compounds which are "guaranteed to contain no free alkali" do not contain any in the dry state, but contain substances such as sodium carbonate or sodium phosphate which are hydrolyzed in solution giving rise to caustic soda which very rapidly deteriorates the felts.—A. P.-C.

Process of and Apparatus for Washing Paper Machine Felts. J. T. Ayers. Eng. pat. 201,728, (Aug. 9, 1923). The under side of the felt is subjected in turn to the action of a hot cleaning solution, cold water, steam under pressure, and air under pressure, while the face (or upper side) of the felt is at the same time subjected to a vacuum.—A. P.-C.

Removal of Oil and Grease from (Paper Machine) Felts. J. I. Hardy. *Paper Trade J.* 47, No. 14, 48 (Oct. 11, 1923). The following procedure is recommended: soak the spot in a mixture of kerosene (1 gallon) and oleic acid (1 cup), then wash with as little rubbing as possible in a solution made up with 1 cup of soda ash to a pail of soft warm water. Kerosene can be advantageously replaced by carbon tetrachloride. The oleic acid forms a soap with the soda ash, which acts as a vehicle to remove mineral oil and grease.—A. P.-C.

New Developments in Rubber Covered Press Rolls. R. H. Whitney. *Paper Mill* 47, No. 45, 12, 46 (Nov. 10, 1923). The advantages of soft press rolls are that they flatten out under pressure, distributing the total pressure over a relatively large area instead of a narrow line of contact. This cuts down damage to felts and gives a better chance for the particles to be flushed through the pores of the felt. There is greater uniformity in the moisture removed from the sheet. The total effective pressure can be increased, allowing of removal of more water, and consequently greater speed of production with the same drying capacity. The one great disadvantage is that the flattening under pressure greatly distorts the rubber covering, which results in corrugations or flat spots and necessity of frequent regrindings. In determining the hardness required of a press roll the various factors must be considered and a compromise made between the technical advantages of a soft covering and the necessity of frequent regrindings. There has recently been developed new compounds which allow of the use of much softer press roll coverings than heretofore without signs of corrugation or necessity of regrinding for many months, instead of two or three weeks till now. The advantages are: freedom from felt marks and finer quality of the sheet; more uniform and uninterrupted production; greater production; the use of more open weave felts, reducing the frequency of felt washing; longer felt life; freedom from regrinding rolls; longer roll life.—A. P.-C.

Process of Watermarking Paper. G. Ebart. Fr. pat. 558,651. Sharp and clear watermarks are obtained in papers made from long strong fiber by adding a second layer of short well-beaten stock on top of the layer of long-fibered stock and making the watermarks go clear through this second layer. The watermarks stand out still better when the second layer is of a different shade from the first one.—A. P.-C.

Dandy Roll. J. H. Lowe. U. S. pat. 1,462,369, July 17, 1923; Eng. pat. 202,196, Aug. 16, 1923. In order to obviate the necessity of having a different roll for each watermark the roll has removable plates which carry the watermarking designs.—A. P.-C.

Improved Dandy Roll. E. K. Trotman and W. G. Trotman. Fr. pat. 555,641. The cylinder is covered with a helically wound relatively heavy wire reinforced by longitudinally disposed wires placed inside the helix. The latter is then covered with a suitable wire cloth.—A. P.-C.

Paper Calender. S. Milne. Eng. pat. 202,753. The rolls are arranged side by side horizontally. Each roll has a pulley at one or both ends. A belt passes over and under the various pulleys. A tensioning pulley varies the tension of the belt. This arrangement relieves the rolls of their own dead weight, and enables pressure to be regulated and graduated according to requirements. Slitting knives are provided so that the paper is cut to various widths while being calendered.—A. P.-C.

Multiphase Calender Operation. Ernst Blau. *Papierfabr.* 21, 439-440 (Sept. 30, 1923). A brief account of calender operation by means of electric motors.—J. L. P.

Glazing Paper. F. V. Harte. Eng. pat. 202,479. Paper, cards, etc., are glazed by subjecting to heated pressure, during which period they are momentarily brought into contact with a thin sheet of copper, which glazes and cools the paper.—A. P.-C.

Paper Roll Plug. E. H. Mayo. U. S. pat. 1,459,596, June 19, 1923. The plug is round in vertical cross section and tapers towards each end, thereby forming a shoulder adapted to bite into the wall of the chamber in the roll of paper at a point spaced from its end, thereby securely holding the plug in position against displacement.—A. P.-C.

Save-All. Charles Muller. Fr. pat. 559,749. A conical tank is divided by a suitable partition in such a way that as the back water travels through it the cross sectional area of its path continually increases and consequently its velocity decreases, thereby giving a chance for solid material in suspension to settle to the bottom, from where it is drawn off.—A. P.-C.

Ha-Co Washing Systems for Old Paper Stock. Anton J. Haug. *Paper Trade J.* 77, No. 20, 53-54 (Nov. 15, 1923). The system consists essentially of a new type of bucket-wheel stuff chest, a gravitator, a screen, and a three decker washing machine. In only a few instances can the machinery be arranged exactly as illustrated in a previous article (*Paper Trade J.* 75, No. 8, (Aug. 24, 1922). Two particular cases of successful installation of this system are described.—A. P.-C.

Material Handling and Conveying Equipment in the Pulp and Paper Mills. John A. Kagerhuber. *Paper Ind.* 5, 1275, 1277 (Nov. 1923). Brief description of apparatus suitable for handling fuel, wood in the mill yard, and shredded pulp, and of the merits of electric industrial trucks, portable conveyors for fighting fires, steam jet ash conveyors, and belt conveyors.—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

BENEFITS SECURED FROM UNIFORM METHODS OF COST ACCOUNTING*

ADDRESS BY MR. ROBERT E. BELT, SECRETARY-TREASURER, THE AMERICAN MALLEABLE CASTINGS ASSOCIATION

To the greater number of executives, the subject of production costs has not the same general interest as have other subjects which seemingly are more closely related to production or to profits. When the matter is carefully analyzed, however, the question of what it costs or will cost to produce a particular product and at what price it can be sold is more closely related to the subject of conducting a business, namely profits, than any other subject to which an executive is required to give consideration. The effect of costs on the profit and loss statement is a most direct one and a distorted relation between costs and selling prices produces a serious situation. The longer the executive is in ignorance of a disturbed relation between costs and selling values, the more serious the situation becomes. Undeniably, every manufacturer should know his production costs, and he should determine them upon principles which are recognized throughout his industry as satisfactory and standard.

An examination of the cost accounting systems of different manufacturers within a given industry where no attempt has been made to standardize methods will show that a variety of widely different methods are used to ascertain costs of production. This is particularly true in the matter of determining the cost of producing individual jobs or products. Cost classifications of all conceivable arrangements are found, and in ascertaining the cost of individual jobs, no two companies will be treating the same elements of either direct or indirect costs in a like manner. Important and appreciably large items of cost will be found to have been overlooked entirely by some companies in determining current product costs. The result is extremely wide differences in costs which are not true differences, but differences to a large extent due to variations in methods of ascertaining costs. The result is a condition that is adverse to sound trade relations and to the best interests and welfare of an industry.

Where accounting methods are uniform, costs can be compared and differences can be intelligently discussed and analyzed, inefficient practices can be corrected, waste can be eliminated, costs can be reduced and prices can be made in an intelligent manner. The board benefits to be derived, therefore, from an accurate knowledge of costs determined in a uniform manner are twofold—economies in production and intelligence in selling.

*From Fabricated Production Dept., Chamber of Commerce of the United States.

Economies in Production

The maximum economies in production are very largely the result of an analytical study of comparative costs of production at different plants, thus enabling the management to maintain a standard of efficiency for each department of manufacture in keeping with the results of the most efficient. The most conclusive proof of the value of uniform accounting from an operating standpoint is the fact that one of the first moves made by a large corporation operating a number of plants manufacturing a given product upon acquiring an additional plant is to change over the accounting system to the uniform one in use at the other plants of the company. No large corporation today attempts to conduct its business with non-uniform methods of accounting, or in other words, without a comparison of costs at the different plants. It is imperative that a comparison be had as only in that way can the relative efficiency of the different plants be determined. If plant inefficiency is disclosed and corrected in this way in a large corporation operating various plants, the same benefits can accrue to an entire industry by the use of similar methods.

In the malleable iron industry it is known that the benefits from uniform accounting have been very great in affording reliable comparisons of operating results which locate waste and inefficiency not easily spotted in any other way. The most fruitful fields have been a comparison of departmental labor costs, of departmental labor turnover and of labor earnings. The monthly and quarterly statements of labor costs are considered by members as the most important statements issued by the Association. The proof of their value is the substantial savings effected and the careful analysis made of the comparative results. Co-operative work of this character, and it cannot be pursued without substantial uniformity in accounting methods, is essential to the maximum economic and financial strength of any industry.

Intelligence in Selling

The benefits of uniform accounting methods in an industry from the standpoint of intelligence in selling are clearly evident. There is a form of competition to which manufacturers cannot object, and that is the competition from concerns which determine their costs in a like manner and whose prices reflect advantages by reason of efficient methods of production and distribution. The competition, however, to which objection can be rightly raised is that of the man who, having no knowledge of his costs makes prices which

preclude the possibility of there being a profit in the business for anyone. It is this situation that a knowledge of actual costs ascertained in some standard approved way largely corrects, for rarely is a product priced at less than cost if the cost is known, but if the cost is not known the price unknowingly may be very likely less than cost. Accounting by uniform methods, which recognizes the fundamental principles applicable to cost-finding in the particular industry, has the effect therefore of eliminating unfair competition, but uniform accounting is not a means of fixing prices and does not in any measure restrict competition.

The adoption of uniform accounting methods does not mean uniform costs. There are and always will be differences in costs of production. It is natural and right that there should be differences in costs, but such differences as do exist should represent actual conditions resulting from better plant organization, higher efficiency, more favorable location, and other operating factors. In the industries where uniform cost methods are recognized and followed the members know that differences in costs are due to operating factors as their costs are built up in a like manner and they include like elements of cost. In competition the companies can feel they will not be called upon to meet a price that has been based upon widely different costs determined in an entirely different manner.

Cost Investigations

The conditions that were found to exist in the malleable iron industry prior to an effort to standardize cost accounting methods are typical of conditions in other branches where no special cost educational efforts have been made. About four years ago in this industry a test was made of the competitive conditions which resulted where concerns were either using different accounting methods or guessing at their costs. Two castings each were furnished forty-three different foundries which were asked to quote on an inquiry for 10,000 pieces of each pattern and to give their total estimated cost of production. With the actual castings before them one would not expect any great variation in estimated cost; but here is the result of the inquiry: Of the forty-three cost estimates on the one casting, about one-half showed a fairly narrow range—from about 7¼ cents to 8¼ cents per pound. Those were the foundries that were in a position to prepare an estimate from their cost records on some more or less accurate basis. The variation in the estimated costs of these particular twenty odd foundries did not cause any special concern. It was the other half of the companies, barring a few unreasonably high estimates, which were the ones that were crippling the industry through the establishment of a price which precluded anyone from getting business at a living price.

As compared with a fair cost of the work at that time of about 8 cents per pound, there was one estimated cost of a fraction less than 5 cents; another at 5½; and six others under 6½ cents. Excluding one abnormally high estimate, the range of the forty-three cost estimates was from 4.9 cents per pound to 11.6 cents per pound.

On the other casting, a more costly one to produce on account of its lower output per molder per day, the cost estimates were still considerably wider. Here again, the estimates of the companies which had dependable records upon which to base their estimates did not vary widely. They were from 12½ cents to 14 cents per pound. Compared to these normal estimates, there was one of 8.3 cents and other of 8.6 cents. Of the forty-three foundries estimating on this particular casting there were two estimates over 20 cents per pound, and six estimates under 10 cents per pound.

This inquiry and demonstration proved remarkably successful in convincing manufacturers who were skeptical of the need of and benefits from uniform cost accounting methods. Everyone knew that actual differences in production costs could account for only a small part of the range in estimates.

An exactly similar cost estimating inquiry and investigation was conducted three years later after 90 per cent of the members of the Association had installed uniform cost methods with the result that the differences in the cost estimates were less than half as great as were they under the former inquiry which would indicate that generally one-half of the differences in the book costs of manufactures using different cost methods is an artificial difference due to accounting and one-half is an actual difference due to operating factors.

What "Uniform Cost Methods" Implies

Uniform methods of cost accounting if successfully applied in a particular industry must of necessity be strictly adaptable to the technique and operating conditions in the industry. That is to say, if success is to be attained, uniformity must be treated as an industry matter. It cannot be otherwise, as different methods and processes of manufacture call for different methods of accounting. The accounting procedure that is applicable in determining costs in the manufacture of castings would not be at all suitable for ascertaining the costs of manufacturing a dissimilar product. Within a given industry, however, it is rarely found that variations in methods or processes of manufacture seriously affect the successful application of fundamental principles of accounting throughout the industry. In the production of malleable iron castings, for instance, the accounting principles and procedure are the same whether the castings are light or heavy, whether the air, open hearth or electric furnace is used as a melting medium, or whether the castings are annealed in the more common design of oven or in the later and more modern continuous Dressler kiln. As long as the final product is fairly standard and the steps in the manufacture of it are similar, minor variations in manufacturing methods or processes do not in themselves interfere with the successful application of uniform fundamental principles of accounting. There should be, of course, variations in the accounts to take care of different operating conditions but these need not interfere with the observance of standard fundamental principles of accounting.

Effective Procedure in Devising Uniform Methods

While the fundamental principles of cost accounting through a given industry are essentially the same and reasonably applicable to all plants, nevertheless, in almost every plant there are operating conditions which are peculiar to the particular plant and which have a bearing on cost accounting methods. For this reason, when a concern adopts literally a so-called uniform cost system, it does not always work out satisfactorily.

Before attempting to devise an industry system of cost accounting it is best for the accountant to visit all the members of the industry if possible which can be readily done when the number does not exceed say forty or fifty. In this way he will become thoroughly familiar with every phase of manufacturing technique and with unusual or exceptional operating conditions which have a direct bearing on a uniform cost practice.

After the accountant is thoroughly posted and conversant with the existing operating conditions and the cost practice throughout the industry he is then, and only then, in a position safely to devise a general or uniform practice.

My experience has been that it is best to follow practices which have been tried and proven rather than to adopt something untried and with which no company has had an experience. In every industry a number of good though differing cost practices will be found and there is always sufficient good material even though weak links are found among the strong, if avail is made of it, upon which to build a system every principle of which has proven its practicability.

Effective Procedure in Installation

In formulating uniform cost methods, it is a good policy I have found to secure the co-operation and advice of the accountants of the members of the industry during the latter stage of the preparation of the uniform system. After the person devising the system and who is responsible for it has covered the necessary field work

and has formulated a plan which to his mind is the best and most practicable, great assistance is secured by inviting the accountants whose co-operation is so essential to take part in a meeting where both prevailing conditions and the principles which are thought to be the best for adoption are thoroughly explained. In addition to the assistance secured in this way, there is the equal advantage of the feeling among the cost accountants that they have been consulted and have had a part in the formulation of the uniform practice.

The system having been approved the next step is to give the several cost accountants such assistance as they need in the work of making the necessary changes in their cost practice to conform it to the standard. The amount of work involved will depend upon the changes to be made but ordinarily no great amount of work at any given plant on the part of the supervising accountants will be required.

The work of convincing executives who are not in accord with the movement and who believe their system is better than the standard one even though it is not worthy of a name forms no small part of the efforts of the supervising accountants. While this phase of the work is the unpleasant and trying part it is highly important and if progress is made must be handled with tact and diplomacy.

Failures in the Past

Unquestionably a great deal of progress has been made during the past few years in improving cost methods and in bringing about a greater degre of uniformity. Not all of the efforts, however, have been successful. It is my belief that more attempts to bring about standardization have proven unsuccessful than successful. The responsibility is about equally divided between the failure of business interests to co-operate and the inherent weakness of some so-called uniform systems.

There is a certain amount of non-co-operation in every industry which retards progress even though the accounting procedure is the best. If the structure is a sound one usually the necessary co-operation can be won. It is difficult to secure co-operation and naturally too when the plan is not a good one and above all not an entirely practical one.

Should Not Be Top Heavy

While a uniform cost system should be fully adequate to the needs of the business it should not be top heavy. All unnecessary detail or red tape that does not justify itself with practical results should be eliminated. A very common shortcoming of uniform systems is the exacting refinements. It is possible to determine costs with a great degree of accuracy but it is not always practicable to do so.

The reasons for the failure of many cost systems whether designed for a single manufacturer or a group of manufacturers is their impracticability. They are too complicated; too complex; too much emphasis is given to unimportant matters and too little to important considerations.

SELLING EXPENSES

By W. R. Basset, of Miller, Franklin, Basset & Co.

When first a few courageous scientists proclaimed the world to be round, and not flat, they were derided and, in some cases, tortured, or threatened with torture, did they not mend their views. It took some centuries of growing understanding before the populace, as a whole, came to agree with the wise men of the by-gone centuries. Even today there are some who differ in opinion; Mr. Voliva, of Zion City, is an outstanding example.

Great Lack of Understanding

Sales expense appears to be as considerable a mystery to salesmen and accountants as ever was the world's contour. I have talked to hundreds—no, thousands—about the distribution of sales expense. I have found complete lack of understanding to exist in most cases. I am led to believe, however, that there is a gradual awakening, by a growing uncertainty shown by many in the reliability of the records they now possess.

Until a few years ago, it was the almost universal practice to record selling expense as a percentage of the sales dollar; that is, if the company sold a million dollars' worth of goods, and its sales expense amounted to one hundred thousand dollars, then its selling expense was popularly spoken of as 10 per cent. A few acted differently in dividing the sales expense by the units sold. A company selling ten million dollars' worth of hundred-dollar typewriters, at a two million dollars' sales expense, would consider its selling expense twenty dollars per typewriter.

Cost of Labor and Cost of Selling

In the amount of space available in these columns, it is not possible to enter upon a lengthy dissertation as to how sales expense should properly be handled. Let us therefore content ourselves with realizing that our entire industrial cost is composed of two items—the cost of labor (and labor's management is a part of labor), and the cost of selling the product of that labor. The material is merely passed on from field, forest, and mine to factory after factory, and thence to the store, or ultimate consumer. In itself, the raw material has cost nothing. Its ultimate value lies in the accumulation of labor and sales expense. In some cases, the accumulation of sales expense in the final product, is greater than the cost of the fabricating labor.

Therefore, if large companies can afford to spend hundreds of thousands of dollars—millions in the aggregate—on proper cost finding methods in the factory, they can certainly afford to spend a similar sum in laying their selling expense under a microscope. In fact, a scrutiny of selling expense is at times of greater importance than a study of factory expense, for factory operations are generally under the eye of an individual who can eliminate considerable waste, whereas selling operations are carried on in the field by men operating at a distance from all supervision.

Great National Waste

The cost of selling is in direct relation to the effort made. A company's selling expense is not universally 10 per cent. It may be 50 per cent in selling to some of its customers, and one-half of 1 per cent in selling to others. A tremendous part of our national waste today is the result of attempting to sell, and selling, to men to whom we cannot afford to sell. Where the first tentative steps are being taken in the direction of bettering selling methods, and the study of selling expense, the inevitable tendency is to lessen attempts to sell where the return cannot be commensurate to the effort.

I believe that our entire national debt could be discharged in less than five years by the elimination of a small part of the existing waste in sales effort.

Canada's News Print Output Rises

[From our regular correspondent.]

Montreal, Que., December 31, 1923.—News print production in Canada during November was 110,839 tons, as compared with 97,184 tons for the same month last year. For the 11 months ended November it was 1,166,225, as compared with 993,988 tons for the same period in 1922, the increase being equal to 17 per cent. The estimated production for the year is 1,270,000 tons, or 189,000 tons over that for 1922.

WHEREIN THE TEXTILE AND PAPER INDUSTRIES ARE RELATED AND CONTRASTED*

By MARTIN S. GRIFFIN

Both paper and cloth are very ancient. Some covering for the body has been necessary ever since the days of Adam and Eve. Some means for recording time and heroic deeds of warriors and kings have been in evidence from the earliest times. The textile and paper industries coincided when the skins of animals were used for protection of the body, and parchment was prepared for records, if we may refer to them in this fashion. Not so, however, when we contemplate the object and purpose of the two. Protection and adornment are the objects sought for in textiles, a purely physical object, for no lasting purpose, nothing more.

Instrument for Preserving Records

Paper in its generic sense has been the coveted instrument for preserving the record of great events since the days of tradition. Dull ears, beclouded minds and treacherous memories contribute little to progress. Each generation must begin as the preceding one had begun. As civilization advanced, it became evident that something more permanent and accurate was necessary. Centuries passed in making progress from records in hieroglyphics upon rough stones, pyramids, obelisks, tablets, skins and papyrus, to writings upon paper.

Thus "paper" becomes the instrument for preserving those priceless spiritual values won and transmitted by advancing civilization. One needs only to reflect upon the service of the public library today to realize, in some measure, the immeasurable utility of paper and what it means to progress.

Cloth and paper are alike of greatest utility to the human race, the one adorning and protecting the body, the other clothing the mind with the riches of wisdom and experience of those who have labored in the past.

Crude and Small Beginnings

Like all notable achievements in advancing civilization, both paper and cloth had very crude and small beginnings. The raw materials were cleaned and prepared wholly by hand and with very crude utensils. Paper was made by dipping a screen into a tub of pulp and straining out the water, while cloth was spun and woven on primitive wheels and looms with foot and hand power. Hand-made paper and homespun fabrics, or their imitations, are always in vogue as novelties. It was not till the last century that either the power looms or paper machines attained any prominence.

In some aspects of the subject, textiles antedate paper. Many imitations of cloth are done in paper. Sometimes rich and costly fabrics for interior decorations are copied for greater decorative utility in paper. None but the very rich could afford these tapestries, woven with great patience and skill by artists in their way, but modern papermaking has been able to copy the effects of tapestries in paper so cheaply that even the poor man can afford tapestry papers for the walls of his home.

Linen Finish Long in Vogue

Linen finish on writing papers has been in vogue for many years. Paper as a substitute for cloth has come into general use for napkins, towels, etc. Cloth and paper are so intimately associated that it is quite proper for us to express these in chemical nomenclature. Cloth-paper equals paper-cloth, and we do have this reversible reaction in paper yarns and cloth woven from it. The German people were forced to wear paper clothing to an extent during the last stages of the war. The loom and the paper machine are very near neighbors.

Some kinds of cloth can be woven from any fibrous material capable of being worked into a yarn. Paper can be made of any vegetable fiber. Practicability has, however, limited the raw materials which can be used in these industries to a few sources. Cotton, flax or linen, wool and silk are almost exclusively the raw materials for textiles, while only vegetable sources of fiber are chosen for paper.

Residuary Legatee of Textile Industry

Until the last fifty years, the paper industry lived upon or was the residuary legatee of the textile industry. What could be more rational or economical than that the cast-off clothing of the people should furnish the raw material for an independent industry? All of the qualities which make cellulose, exemplified in cotton and linen, valuable for textiles, are equally valuable for paper. The processes of wear in the life history of clothing are an asset to the papermaker. The value of flax fiber when prepared for textiles is such that it can stand the expense of cleaning, but the rejected straw, unfit for this purpose, cannot profitably be utilized for the cheaper product of paper, because it is not sufficiently resistant to the drastic reduction processes of the papermaker. Rags, therefore, are in many ways more suitable for paper than new stock, at least they are more economical to process and make a quality of paper that cannot be matched with new material.

Wood Made Possible Present Newspaper

With the necessary demand for paper, other sources have been sought, and wood has made possible the present newspaper, and entered into the composition of all paper products, except the highest classes of writing paper.

The manufacture of textiles is almost wholly mechanical, though the finishing processes are largely chemical. Papermaking is a combination of both in its several stages. Thus the beating of stock is both a mechanical and chemical process which affects the quality of the product. No stage in the textile processes is comparable with it. This is the most essential part of the whole process and is preliminary to the formation of the sheet, just as the carding and spinning is reflected in the quality of the cloth.

Cloth Processes

Cloth processes consist in carding or combing relatively long fibers into a sliver, which can then be spun and drawn into yarn of different counts. There are two kinds of yarns, warp and filling. The function of the loom is to weave or interlace these yarns at right angles. All styles are built upon this basic formation.

In the paper mill, carding and spinning has its counterpart in the beating engine, wherein the beating "draws out" and hydrates the fibers into a pulpy mass which, in the sheet formation, will mat and felt.

Cloth, a sort of latticework, composed of simple fibers forming threads or yarns, has many limitations, whereas "paper" composed of a semi-gelatinous-plastic pulp has no such limitations. We may almost view the making of paper as a fluid process of making near-cloth.

The modern automatic and jacquard looms, and high-speed, up-to-date paper machines, are wonderfully highly developed, and are among the most useful of all modern inventions.

*American Dyestuff Reporter.

Buys Site for $2,500,000 Paper Mill

[BY OUR REGULAR CORRESPONDENT]

LOS ANGELES, Cal., December 27, 1923.—According to the *Los Angeles Times* the National Paper Products Company has purchased a tract of land at Cudahy Station as a site for the erection of a $2,500,000 paper mill.

The Challenge

TO you, your books of account are an old story, but when the public accountant works on them he questions not only their form and accuracy but their purpose. He is trained to challenge every fact and method.

That challenge is a tremendous money-saver, and some inside news of its astonishing service to business will appear in this space from week to week. Names and confidences will be held sacred, but the occurrences will be described with absolute truth. They will convince you that—good accounting pays.

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Committee for Paper Industries Show

With every mail bringing in letters indicating that the Second Paper Industries Exposition, to be held at the Grand Central Palace, New York, the week of April 7, 1924, will be far bigger and better than the 1923 Exposition, the management is able to announce the appointment of an Advisory Committee, representing the various groups which are anxious to see the Exposition a complete success. The committee is as follows:

Dr. Hugh P. Baker, executive secretary, American Paper and Pulp Association.

H. J. Berger, editor, PAPER TRADE JOURNAL.

J. A. Carpenter, vice-president, National Paper Trade Association.

F. D. Cowdery, Albany Felt Company.

N. R. Davis, president, American Pulp and Paper Mill Superintendents' Association.

Joseph L. Fearing, president, Salesmen's Association of the Paper Industry.

Hardy S. Ferguson, *Paper Mill Engineer.*

E. B. Fritz, publisher, *The Paper Industry.*

Philip A. Howard, president, *American Paper Merchant.*

C. W. Hurtubis, chairman, Woodlands Section, American Paper and Pulp Association.

Dr. Ralph McGee, Columbia University.

Burton Millar, editor, *Paper.*

Fred W. Payne, co-manager, Exposition.

Frank W. Power, president, National Paper Trade Association.

L. D. Post, publisher, *Paper Mill.*

Walter J. Raybold, former president, American Paper and Pulp Association.

Charles F. Roth, co-manager, Exposition.

George W. Sisson, Jr., former president, American Paper and Pulp Association.

R. C. Spear, the Cheney-Bigelow Wire Works.

Henry W. Stokes, president, American Paper and Pulp Association.

H. S. Taylor, president, Technical Association of the Pulp and Paper Industry.

Thomas Walden, editor, *U. S. Paper Maker.*

Dr. Louis E. Wise, New York State College of Forestry.

The first notices sent to prospective exhibitors have brought in a response that was surprising, in view of the fact that the notices were sent out shortly before the busy holiday season. Paper manufacturing companies that did not exhibit last year are engaging space, and some of those that did exhibit a year ago are asking for the reservation of more space than they used at the first exposition. The replies from machinery and supply companies are especially encouraging to the management, while the returns from the container group have been such as to justify the establishment of a special section for the companies making bags, boxes, cans and special containers.

The educational side of the exposition will be particularly worthy of note, as plans are being made for the installation of even more exhibits of this type than were included in the 1923 exposition. Features and programs of special interest to printers, lithographers, and other large users of paper will be featured during the week, and the special features will be such as to prove of great interest to the ultimate consumer, which was largely represented in the attendance a year ago.

Work is now under way toward the arrangement of special days for particular groups, as was done last year, when there was a Clean Food Day, a day for the printers and other special programs. There will be some special program feature every day of exposition week.

The Technical Association of Paper Industry has been invited to repeat its holding of a special program at the exposition, as the associations' annual convention is held during the week, and features of special interest to the paper mill superintendents will form part of the week's program, even if it is not possible to hold a special superintendents' program the latter part of the week.

"We have had wide experience in the management of expositions," said Charles F. Roth, co-manager of the exposition, "but with all our experience we have been greatly surprised at the volume of inquiries and actual business that has been developed more than three months before the date for the opening of the exposition, and in the midst of the busy holiday season. This is sufficient assurance that the exposition will be even a greater success than our initial effort in April of 1923."

Copco Salesmen Meet

[FROM OUR REGULAR CORRESPONDENT.]

COLUMBUS, Ohio, December 29, 1923.—That 1924 will be one of the very best business years in the history of the country, was the consensus of opinion expressed by 75 salesmen who gathered at the Annual Sales Convention of The Central Ohio Paper Company, December 27 and 28. The salesmen represented the Cleveland and Toledo houses of the company and sales offices throughout the Middle West.

The year 1923 was shown by statistics to have been the biggest sales year in the history of the company from a tonnage standpoint. Prizes were awarded to salesmen exceeding their quotas for the year, first prize being won by C. E. Munz of Detroit. E. C. Roberts of Columbus won first prize for papers submitted on salesmanship.

Speakers who addressed the Copco salesmen Thursday and Friday were: E. H. Beimfohr, The A. M. Collins Company, Philadelphia, Pa.; W. D. Rodgers, The S. D. Warren Company, Boston, Mass.; Al. Sutphin, The Braden Printing Ink Company, Cleveland, Ohio; C. C. Chapman, The Burt Cup Company, Buffalo, New York; G. B. Gibson, The Wausau Sulphate Fibre Company, Chicago; A. R. Jackson, Nekoosa-Edwards Paper Company; James Wilson, The Hoover & Allison Company, Xenia, Ohio; George K. Cadwell, The American Writing Paper Company, Holyoke, Mass.

The convention closed with the Annual "Copco Family Dinner." Over 300 salesmen, employes of the Columbus house and their families were present. Following the dinner, a dance was held at the Columbus Country Club.

Marquardt, Blake & Decker Formed

Blake & Decker, Inc., 419 Lafayette street, New York, in conjunction with Oswald F. Marquardt, have taken over the New York warehouse of the Dill & Collins Company and have formed the new concern of Marquardt, Blake & Decker, Inc. The officers of the new company are:

Oswald F. Marquardt, president, formerly, and for 15 years manager of the Dill & Collins Company, New York City.

Bertram T. Blake, vice-president and sales manager, formerly president of Blake & Decker, Inc., and for six years prior with the Dill & Collins Company.

Randall H. Decker, secretary and treasurer, formerly secretary and treasurer of Blake & Decker, Inc., and for 12 years prior with the Dill & Collins Company.

The concern has issued the following notice in connection with the new arrangement:

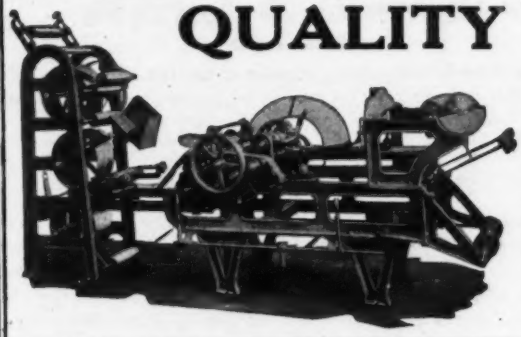
"The personnel of the Dill & Collins Company's New York warehouse will be combined with the equipment and personnel of Blake & Decker, Inc., at 419 Lafayette street, New York City.

"Larger assortments of the D. & C. products, together with the grades formerly stocked and distributed by Blake & Decker, Inc., will be available to the trade.

"Immediate delivery can be made from the Lafayette street warehouse by the Marquardt, Blake & Decker trucks.

"The telephone number of the new company will remain, Spring 8737."

QUALITY *plus* PRODUCTION



MR. BAG MANUFACTURER: For quality and production every machine is guaranteed, so you take no risk.
The Superintendent of a large bag plant, unsolicited, writes: "All the machines used by this Company have been furnished by you. During my fifteen years in the bag line I have used your machines, and consider them the best square and flat bag machines on the market. I see no reason why the bag manufacturers should not be satisfied with your machines. The design of the Fischer machines and workmanship are A No. 1."
Let us quote you on your requirements of flat and square, as well as satchel bottom machines for making 1/16, ⅛ and ¼ barrel sizes.

FISCHER MACHINE CO.
310-316 N. Eleventh St., Philadelphia, Pa.

The B Co. Inc.

QUALITY PULPS

HAFSLUND NORWAY — "HAFSLUND BEAR" Bleached Sulphite

F:HAGA — "FORSHAGA" Bleached Sulphite

KRAFT HURUM NORWAY SPECIAL — "HURUM SPECIAL" Extra Strong Kraft

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200 FIFTH AVENUE NEW YORK, N. Y.

THE SOURCE OF

SMALL PAPER ROLLS

OF EVERY DESCRIPTION

ADDING MACHINE ROLLS, CASH REGISTER ROLLS, TICKER TAPE, CLOCK ROLLS, BLASTING, DIE WIPING, TIRE WRAP, BED WRAP, BACKING PAPER, MAILING MACHINE ROLLS

AUTOGRAPH ROLLS, TIME CLOCK ROLLS, RIBBON PAPER, TELAUTOGRAPH, CARPET TISSUE, ROLLS FOR ANY MAKE OF AUTOMATIC REGISTERS, DOMESTIC OR EXPORT PACKING

Paper Manufacturers Co. Inc.
PHILADELPHIA - PENN.
MAIN OFFICE 526-528 CHERRY ST. FACTORY & R.R. SIDING. 13TH & NOBLE STS.

Fitchburg, Mass., U. S. A.

UNION SCREEN PLATE COMPANY

Lennoxville, P. Q. Canada

UNION BRONZE (Best phosphorized Cast Metal) **SCREEN PLATES** ROLLED BRASS (Union Quality)

Old Plates RECLOSED and RECUT to accurate gauge.

UNION BRONZE SCREWS for Screen Plates

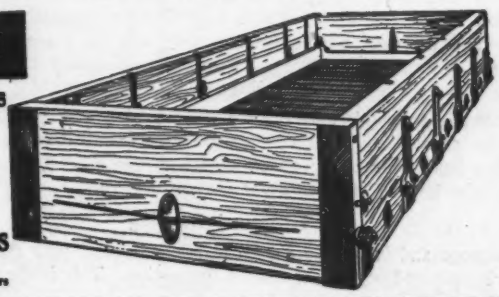
UNION BRONZE SUCTION BOX PLATES

Immediate Delivery of the Largest Orders. Satisfaction Guaranteed.

THE UNION WHITHAM SCREEN PLATE VAT AND FASTENERS

THE ORIGINAL — Over One Thousand in Successful Operation

THE BEST — Recommended by Screen Makers



New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, JANUARY 2, 1924.

The two holidays have caused a great lull in the paper market during the past fortnight and little news worthy of note has come to the surface. It is believed that the coming week will see things snapping in a much livelier fashion and that better business is certainly not far off.

According to manufacturers and dealers the whole trouble for the past few months has been that the big users of paper and pulp took in too big a supply and they have been busy using it up. When the fall season opened the prophets of the trade were sure that there was going to be an exceedingly busy time if not an actual boom. Then the market did nothing in the world but fly into a perfect state of calm about it.

There really is not anything to say about the trend of events during the week because they haven't moved. It is certain, however, that a good many members of the industry heaved a sigh of relief when the bells rang out a new year on Monday night and chalked up at the top of the old ledger for 1923 "Rest in Peace."

Fine papers have been in a little better demand with the prices running just about the same as they have been right along for the past six months. The mills are said to be speeding up production a little in anticipation of an increased demand during the first of the New Year owing to the depletion of stocks on the dealers' shelves.

Book paper is enjoying a moderately good market although manufacturers say that there is still a great deal of room for improvement. Prices remained fairly static with the contract quotations as yet unchanged and the open market about at a standstill because of the little business that was transacted there during the past week.

Kraft paper is still somewhat slow of movement and can still be had at bargains in the open market where some distressed lots are coming in at low prices. With the reduction of the contract price several weeks ago only the larger companies were left seriously in competition. Most of the smaller ones and the lesser importers decided to withdraw from the market and await more favorable conditions.

Fiber and manila papers have remained practically static during the week with no change either upward or downward in prices. In the open market things have been dull and on contract goods have been moving with regularity, but in a volume which dealers say might be larger. The same is true of board.

Mechanical Pulp

Groundwood mills are running pretty close to capacity and the demand for this grade of pulp is going along with that for the finished product, news print. Prices have remained about the same during the week with no apparent tendency to go any higher than they are now.

Chemical Pulp

Chemical pulp has also remained just about the same during the past week. There has not been any more trading in this commodity than there has been in any of the other articles in the market during the week. Prices have been motionless to all intents and purposes although some stray lots have been a little cheaper.

Rags

Domestic and imported rags are still showing a fair amount of activity particularly in the better grades. Prices have not gone up any further than they were two weeks ago except in the case of a few isolated shipments.

Old Rope and Bagging

Old rope and bagging are both in better demand with the price showing no tendency as yet toward fluctuation. This is the season for good sales in these commodities and the dealers say that they are taking full advantage of it.

Waste Paper

Waste paper is fairly active in spite of the fact that it has been a somewhat dull week. Trading has not swung in either direction enough, however, to cause any marked changes in price.

Florida Paper Mills Co. to Build

The following regarding the activities of the Florida Paper Mills Company was printed in a recent issue of the *Jacksonville Times Union*:

"Work will probably start within a week on a railway from the East Coast tracks to the river for the Florida Paper Mills Company, according to officials of the company who were in South Jacksonville yesterday in connection with the paper mill proposition. This track will be about a mile in length and will give the company facilities for outgoing and incoming shipments and will be built to the river bank where the plant will be located. The company will also build a pier out into the channel of the river at their property later, it is stated which will give them facilities for water transportation.

"Officials stated yesterday that work would also begin in a few days on a hard road running from the plant to the Atlantic boulevard, which will be used for trucks and automobiles going from and to the plant.

"The first work to be done at the plant will be the clearing of ground and the throwing up of the grade for the railroad and hard road and a gang of men will be given this job some time next week, it is stated.

"The activities of the Florida Paper Mills Company have been watched with interest over the entire country and when the plant is completed and in operation it will be the first of its kind in the world and it is expected that actual manufacture of paper will begin within six months or earlier.

"The farmers and truck growers, as well as poultrymen are interested for the company will manufacture strawberry boxes, cartons for fruits and eggs and everything that can be manufactured from paper the farmers can use and it is stated that the finished product can be furnished cheaper than that made of the raw wood which is now in general use by poultry men and truck growers.

"Gilbert Leach, newspaperman of Leesburg and one of the leading spirits in the promotion of this industry, will be in Jacksonville today or tomorrow when he will go over the ground and get things ready for the actual starting of work at the plant site. Other officials of the company are already here and it is stated that they intend to push construction at a rapid rate, until the plant is in operation.

"Machinery amounting to thousands of dollars is already stored at the plant and ready for installing as soon as the main building is ready.

"The location for the paper mill was selected after looking over several sites in this section. The idea was to have it located where both water and rail facilities could be secured and the present site is said to be ideal for the purpose of the company."

Definitive Certificate of Belgo Now Ready

MONTREAL, Que., December 31, 1923.—Almost coincident with the second dividend which has just been declared on the preferred stock of the Belgo-Canadian Paper Company, Limited, comes the announcement that the definitive share certificates are available for delivery. The exchange will be made at the office of the Registrar, The National Trust Company, and through the investment bankers or brokers with whom the shareholders concerned have been dealing.

Market Quotations

Paper Stock Securities

New York Stock Exchange closing quotations December 31, 1923.

	BID	ASKED
American Writing Paper Company, pref.	2¼	3
International Paper Company, com.	38½	38⅞
International Paper Company, pref. stamped	64	65
Union Bag & Paper Corporation	64¾	65

Paper

F. o. b. Mill

Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.75	@	4.00
Rolls, transit	4.00	@	4.25
Sheets	4.25	@	4.50
Side runs	3.50	@	4.15
Book, Cased—f. o. b. Mill—			
S. & S. C.	7.25	@	9.00
M. F.	7.00	@	8.75
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill—			
White No. 1	.80	@	.90
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.78	@	.85
Kraft—f. c. b. Mill—			
No. 1 Domestic	6.00	@	6.25
No. 2 Domestic	5.25	@	5.75
Imported	4.65	@	5.20
Manila—			
No. 1 Jute	8.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.25
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	5.50	@	5.75
No. 2 Fibre	5.00	@	5.25
Common Bogus	3.50	@	—
S. Screening	3.25	@	3.75
Card Middles	4.00	@	5.00
Boards—per ton—			
News	55.00	@	60.00
Straw	61.00	@	63.00
Chip	50.00	@	55.00
Binders' Boards	70.00	@	75.00
Sgl. Mla. Lt. Chip	65.00	@	75.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood—			
Screenings	20.00	@	25.00
Glassine—			
Bleached, basis 25 lbs.	12.00	@	15.00
Bleached, basis 20 lbs.	14.00	@	17.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	39.00	@	45.00

(F. o. b. Mill)

No. 1 Domestic	40.00	@	45.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	4.50	@	5.00
Easy Bleaching	3.50	@	3.75
No. 1 strong unbleached	3.30	@	3.50
No. 2 Strong unbleached	2.85	@	3.10
No. 1 Kraft	3.25	@	3.40
Sulphate—			
Bleached	4.00	@	4.15

(F. o. b. Pulp Mill)

Sulphite (Domestic)—			
Bleached	4.30	@	5.00
Easy Bleaching	3.25	@	3.50
News Sulphite	3.00	@	3.25
Mitscherlich	3.20	@	3.30
Kraft (Domestic)	3.10	@	3.30
Soda Bleached	4.25	@	4.35

Domestic Rags

New Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—			
New White, No. 1	12.50	@	13.00
New White, No. 2	6.00	@	6.50
Silesias, No. 1	7.00	@	7.50
New Unbleached	10.50	@	11.00
Washables	5.00	@	5.50
Fancy	5.75	@	6.25
Blue Overall	7.25	@	8.25
New Blue	5.00	@	5.55
New Black Soft	4.75	@	5.25
New Light Seconds	2.85	@	3.10
O. D. Khaki Cuttings	4.25	@	4.50
Men's Corduroy	3.75	@	4.00
New Canvas	6.50	@	7.00
New Black Mixed	2.60	@	2.80
White, No. 1—			
Repacked	5.75	@	6.25
Miscellaneous	5.00	@	5.25
White, No. 2—			
Repacked	4.00	@	4.25
Miscellaneous	3.60	@	3.80
St. Soiled, White	2.90	@	3.10
Thirds and Blues—			
Repacked	2.75	@	3.00
Miscellaneous	2.45	@	2.55
Black Stockings	2.75	@	3.00
Roofing Rags—			
Cloth Strippings	1.45	@	1.65
No. 1	1.45	@	1.65
No. 2	1.30	@	1.40
No. 3	.85	@	.95
No. 4	.85	@	.95
No. 5A	1.00	@	1.10

Foreign Rags

New Light Silesias	5.25	@	5.75
Light Flannelettes	8.00	@	
Unbl'chd Cottons	7.50	@	8.50
New White Cuttings	10.00	@	11.00
New Light Oxfords	6.00	@	7.25
New Light Prints	4.50	@	6.00
New Mixed Cuttings	2.00	@	2.50
New Dark Cuttings	1.80	@	2.20
No. 1 White Linens	10.00	nominal	
No. 2 White Linens	6.50	nominal	
No. 3 White Linens	5.00	nominal	
No. 4 White Linens	3.50	nominal	
Old Extra Light Prints	2.50	nominal	
Ord. Light Prints	2.25	nominal	
Med. Light Prints	2.00	nominal	
Dutch Blue Cotton	2.50	nominal	
German Blue Cottons	2.00	nominal	
Ger. Blue Linens	3.00	@	3.25
Checks and Blues	1.25	@	1.50
Dark Cottons	1.25	@	1.40
Shoppery	1.00	@	1.05
French Blues	2.25	nominal	

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—			
Foreign	1.20	@	1.30
Domestic	1.20	@	1.30
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.30	@	1.40
Bright Bagging	1.10	@	1.20
Sound Bagging	.90	@	1.00
Manila Rope—			
Foreign	6.25	@	6.50
Domestic	6.50	@	6.75
New Bu. Cut	2.15	@	2.25
Hessian Jute Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10

Twines

Cotton—(F. o. b. Mill)—			
No. 1	.30	@	.38
No. 2	.29	@	.31
No. 3	.34	@	.36
India, No. 6 basis—			
Light	.17	@	.18
Dark	.16	@	.17
B. C., 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers' Twine			
Balls	.09	@	.11
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.15	@	.16
Amer. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York)

Shavings—			
Hard, White, No. 1	4.10	@	4.20
Hard, White, No. 2	3.25	@	3.35
Soft, White, No. 1	3.20	@	3.40
Flat Stock—			
Stitchless	1.80	@	1.90
Over Issue Mag.	1.80	@	1.90
Solid Flat Book	1.60	@	1.85
Crumbled No. 1	1.35	@	1.45
Solid Book Ledger	2.25	@	2.35
Ledger Stock	2.00	@	2.15
New B. B. Chips	.70	@	.80
Manilas—			
New Env. Cut	2.55	@	2.65
New Cut No. 1	1.85	@	2.10
Extra No. 1 old	1.40	@	1.50
Print	1.10	@	1.20
Container Board	.95	@	1.00
Bogus Wrapper	.85	@	.95
Old Krafts, machine compressed bales	2.10	@	2.20
News—			
No. 1 White News	1.80	@	2.35
Strictly overissue	1.10	@	1.20
Strictly Folded	.85	@	.95
No. 1 Mixed Paper	.55	@	.70
Common Paper	.40	@	.55

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1 Rag Bond	30	@	35
No. 2 Rag Bond	14	@	25
Water Marked Sulphite	9½	@	13
Sulphite Bond	7¼	@	10¼
Sulphite Ledger	9½	@	14
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	5¼	@	7½
No. 1 S. & S. C. Book	6¼	@	7¾
Coated Book	8	@	10
Coated Label	8	@	10
News—Rolls, mill	3¾	@	4½
News—Sheets, mill	4¼	@	4¾
No. 1 Manila	4½	@	6
No. 1 Fibre	4¾	@	5¾
No. 22 Manila	4¼	@	4½
Butchers' Manila	4¼	@	4½
No. 1 Kraft	5¾	@	6¾
No. 2 Kraft	5½	@	6
Wood Tag Boards	4½	@	6
Screenings	2¾	@	3
Boards, per ton—			
Plain Chip	$45.00	@	50.00
Solid news	50.00	@	55.00
Manila Lined Chip	55.00	@	60.00
Container Lined—			
85 Test	70.00	@	75.00
100 Test	75.00	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.70	@	3.80
No. 1 Soft Shav.	2.90	@	3.00
No. 1 Mixed	1.30	@	1.40
No. 2 Mixed	1.20	@	1.30
White Envel. Cuttings	3.70	@	3.90
Ledgers and Writings	1.80	@	—
Solid Books	1.70	@	—
No. 1 Books, Light	1.45	@	—
Blanks	2.25	@	2.30
Ex. No. 1 Manila	2.30	@	2.40
Manila Envelope Cuttings	2.50	@	2.60
No. 1 Manilas	1.35	@	1.45
Folded News (over issue)	1.00	@	—
Old Newspaper	.95	@	—
Mixed Papers	.85	@	.90
Straw Clippings	.85	@	.90
Binders' Clippings	.85	@	.90
Kraft	2.25	@	2.35
New Kraft Cuts	2.45	@	2.55
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	35.00	@	—
No. 2	33.00	@	—
No. 3	31.00	@	—
No. 4	31.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board	1.25	@	1.50

(Carload Lots)

Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	—
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.00
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.00

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.25	@	4.40
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.25	@	3.50
No. 2 Soft White	2.15	@	2.25

(Continued on page 70)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING DECEMBER 29, 1923

SUMMARY

News print .....288 rolls, 208 bls.
Wrapping paper ..... 371 bls.
Printing paper .....258 bls., 20 cs.
Wall paper .....23 bls., 41 cs.
Hangings ..... 58 bls., 13 cs.
Cigarette paper .....1,570 cs.
Packing paper .....1,001 bls., 39 cs.
Surface coated paper ..... 2 cs.
Photo paper ..... 2 cs.
Cellophane paper ..... 10 cs.
Tissue paper ..... 12 cs.
Miscellaneous paper.....17 cs., 125 bls., 229 rolls

CIGARETTE PAPER

American Tobacco Co., Sarcoxie, Bordeaux, 700 cs.
R. J. Reynold Tobacco Co., Sarcoxie, St. Nazaire, 630 cs.
De Manduit Paper Corp., Sarcoxie, St. Nazaire, 240 cs.

HANGINGS

A. C. Dodman, Jr., Inc., N. Amsterdam, Rotterdam, 19 bls.
A. C. Dodman, Jr., Inc., N. Amsterdam, Rotterdam, 4 cs.
A. C. Dodman, Jr., Inc., Celtic, Liverpool, 20 bls.
W. H. S. Lloyd & Co., Verbania, London, 29 bls.
W. H. S. Lloyd & Co., Verbania, London, 9 cs.

WALL PAPER

F. J. Emmerich, Celtic, Liverpool, 17 bls.
R. F. Downing & Co., Inc., Pr. Monroe, London, 6 bls.
R. F. Downing & Co., Inc., Pr. Monroe, London, 41 cs.

PRINTING PAPER

Wilkinson Bros. & Co., Inc., Anaconda, Antwerp, 106 bls.
B. F. Drakenfeld & Co., Scythia, Liverpool, 20 cs.
M. O'Meara Co., Oscar II, Kotka, 152 bls.

NEWS PRINT

H. Reeve Angel & Co., Inc., Oscar II, Kotka, 116 rolls.
Melby, Kutroff & Co., Inc., M. Washington, Trieste, 208 bls.
M. Gottesman & Co., Inc., Bergensfjord, Kristiania, 172 rolls.

WRAPPING PAPER

Great Eastern Paper Co., Bergensfjord, Kristiania, 266 bls.
C. Steiner, N. Amsterdam, Rotterdam, 105 bls.

PACKING PAPER

Republic Bag & Paper Co., N. Amsterdam, Rotterdam, 76 bls.
Birn & Wachenheim, N. Amsterdam, Rotterdam, 15 cs.
Great Eastern Paper Co., N. Amsterdam, Rotterdam, 898 bls.
Import Paper Co., N. Amsterdam, Rotterdam, 14 cs.
Wilkinson Bros. & Co., Inc., Mercier, Antwerp, 36 bls.

SURFACE COATED PAPER

Gevaert Co. of America, N. Amsterdam, Rotterdam, 2 cs.

PHOTO PAPER

J. J. Gavin, Celtic, Liverpool, 2 cs.

CELLOPHANE PAPER

DuPont Cellophane Co., La Savoie, Havre, 10 cs.

TISSUE PAPER

F. C. Strype, Scythia, Liverpool, 12 cs.

PAPER

H. A. Caesar, La Savoie, Havre, 2 cs.
Cimbout freres, La Savoie, Havre, 2 cs.
Japan Paper Co., La Savoie, Havre, 8 cs.
Allan, Cory Co., N. Amsterdam, Rotterdam, 84 bls.
Whiting & Patterson Co., N. Amsterdam, Rotterdam, 19 bls.
H. Reeve Angel & Co., Inc., Verbania, London, 5 cs.
Gary Paper & Twine Co., Bergensfjord, Kristiania, 121 rolls.
Litchfield Enquirer, Bergensfjord, Kristiania, 5 bls.
Rourke-Eno Paper Co., Bergensfjord, Kristiania, 10 bls.
Clements Paper Co., Bergensfjord, Kristiania, 7 bls.
Melby Kutroff & Co., Inc., Bergensfjord, Kristiania, 108 rolls.

RAGS, BAGGINGS, ETC.

M. O'Meara Co., Esperanza, Vera Cruz, 60 bls. rags.
New England Waste Co., Esperanza, Vera Cruz, 63 bls. rags.
New England Waste Co., Esperanza, Vera Cruz, 27 bls. cotton waste.
Acme Bag Co., Exeter City, Bristol, 53 bls. bagging.
E. J. Keller Co., Inc., Brazilier, Antwerp, 163 bls. flax waste.
W. Schall & Co., Brazilier, Antwerp, 63 bls. flax waste.
American Exchange Nat'l Bank, Brazilier, Antwerp, 68 bls. flax waste.
New York Trust Co., Mercier, Antwerp, 192 bls. rags.
W. Hughes & Co., Inc., N. Amsterdam, Rotterdam, 42 bls. cotton waste.
Paul Berlowitz, N. Amsterdam, Rotterdam, 111 bls. rags.
E. J. Keller Co., Inc., N. Amsterdam, Rotterdam, 153 bls. rags.
E. J. Keller Co., Inc., Anaconda, Antwerp, 292 bls. flax waste.
E. J. Keller Co., Inc., Anaconda, Antwerp, 127 bls. bagging.
E. J. Keller Co., Inc., Ig. Florio, Algiers, 65 bls. bagging.
E. J. Keller Co., Inc., Ig. Florio, Algiers, 155 bls. rags.
E. J. Keller Co., Inc., Westphalia, Hamburg, 21 bls. thread waste.
E. J. Keller Co., Inc., Westphalia, Hamburg, 87 bls. jute waste.
Castle & Overton, Seydlitz, Bremen, 35 bls. rags.
Salomon Bros. & Co., Pittsburgh, Hamburg, 165 bls. cotton waste.

OLD ROPE

E. J. Keller Co., Inc., N. Amesterdam, Rotterdam, 199 coils.
E. J. Keller Co., Inc., Ig. Florio, Algiers, 135 coils.
E. J. Keller Co., Inc., Columbia, Trieste, 61 coils.
Brown Bros. & Co., Exeter City, Bristol, 206 coils.
Ellerman-Wilson Lines, Pr. Monroe, London, 109 bales.
Castle & Overton, Columbia, Glasgow, 66 coils.
Salomon Bros. & Co., Ala, Antwerp, 85 coils.

WOOD PULP

Johanesson, Wales & Sparre, Inc., Oscar II, Copenhagen, 500 bls. sulphite pulp.
Nilsen, Lyon & Co., Inc., Bergensfjord, Kristiania, 450 bls. sulphite pulp.
J. Andersen & Co., Bergensfjord, Kristiania, 900 bls. sulphite pulp.
Perkins, Goodwin & Co., Bergensfjord, Kristiania, 300 bls. chemical pulp.
E. M. Sergeant & Co., Bergensfjord, Kristiania, 120 bls. mechanical pulp.
Bulkley, Dunton & Co., Bergensfjord, Kristiania, 4,000 bls. mechanical pulp.
R. F. Hammond, Inc., Bergensfjord, Kristiania, 500 bls. mechanical pulp.
Woodpulp Trading Co., Ltd., Bergensfjord, Kristiania, 2,500 bls. mechanical pulp.
Tidewater Paper Mills Co., Bornholm, Liverpool, N. S., 12,308 bls. ground wood pulp.
American Wood Pulp Corp., S. Ventana, Bremen, 150 bls. wood pulp.
H. Hollesen, Inc., S. Ventana, Bremen, 2,099 bls. wood pulp.
Castle & Overton, S. Ventana, Bremen, 550 bls. wood pulp.

WOOD FLOUR

B. L. Soberski, Bergensfjord, Kristiania, 1,650 bags.

CASEIN

Kalbfleisch Corp., Pan America, Buenos Ayres, 4,999 bags.
Atterbury Bros., Inc., Vandyck, Buenos Ayres, 766 bags.
International Acceptance Bank, Vandyck, Buenos Ayres, 835 bags.

PHILADELPHIA IMPORTS

WEEK ENDING DECEMBER 29, 1923

E. J. Keller Co., Inc., Sorriss, Marseilles, 60 bls. rags.
E. J. Keller Co., Inc., Sarcoxie, Bordeaux, 39 bls. rags.
E. J. Keller Co., Inc., Sarcoxie, St. Nazaire, 94 bls. rags.
Castle & Overton, by same, 122 bls. rags.
Katzenstein & Keene, Inc., by same, 138 bls. rags.
Katzenstein & Keene, Inc., Chickahominy, London, 102 bls. rags.
S. Birkenstein & Sons, by same, 84 bls. rags.
New York Trust Co., W. Cawthorn, Leghorn, 868 bls. rags.
E. J. Keller Co., Inc., by same, 49 bls. rags.
Nat'l Bank of Commerce, by same, 58 bls. rags.
Katzenstein & Keene, Inc., by same, 77 bls. rags.
American Woodpulp Corp., by same, 76 bls. rags.
American Woodpulp Corp., Anaconda, Antwerp, 60 bls. rags.
New York Trust Co., by same, 324 bls. rags.
Waste Material Trading Corp., by same, 45 bls. rags.
E. J. Keller Co., Inc., by same, 433 bls. rags.
Salomon Bros. & Co., by same, 32 bls. cotton waste.
E. Butterworth & Co., Inc., by same, 86 bls. bagging.
Castle & Overton, by same, 320 bls. rags.
Castle & Overton, Manchester Port, Manchester, 191 bls. rags.
Castle & Overton, Harold, Hamburg, 175 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING DECEMBER 29, 1923

Castle & Overton, ——, Germany, 2,050 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING DECEMBER 29, 1923

Castle & Overton, Sagoporack, London, 426 bls. waste paper.

NEW ORLEANS IMPORTS

WEEK ENDING DECEMBER 29, 1923

Castle & Overton, Bruges, Havre, 204 bls. rags.

New York Office
280 Broadway

Dayton Office

Chicago Office
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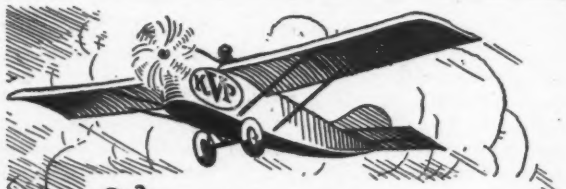

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, JANUARY 2, 1924.

Although the holidays curtailed movement of goods in the chemical market both during this and last week there is a general feeling among dealers and manufacturers that 1924 is going to be happier at least than the latter part of 1923 has been.

It is believed that the slowness was due in part to the fact that the consumers were oversupplied in anticipation of a boom in the fall that failed to arrive. Because of this they took in a great deal more raw material than they needed and have naturally been disposed to use this up before showing much interest in the current market.

As far as the week goes it has shown little actual change as is to be expected in view of the fact that so many people were away for several days. There was a tendency to let business run along by itself for a while and get out to celebrate Christmas and New Year. Prices have not changed, but it is believed that they will within a few weeks.

BLEACHING POWDER.—Although bleach remained fairly quiet so far as trading among paper manufacturers was concerned some of the other industries have been showing more interest in it and the price has therefore remained just about the same. The period of warfare has evidently passed among the dealers and manufacturers and the price is still being quoted at 1.25 to 1.40 cents a pound.

CAUSTIC SODA.—The demand for caustic among paper men did not show any great improvement during the week, but there is a good market for it elsewhere and that is tending to keep conditions fairly stable. The price is about 3.10 cents a pound on a flat basis at the works.

CASEIN.—Buyers of casein have been trying to pound the price down further during the week and while they have been successful in some isolated cases they have, on the whole, only succeeded in causing a cessation of trading in many quarters. The price still remains at from 13 to 16 cents a pound.

CHINA CLAY.—The same situation continues in china clay so far as paper men are concerned although a strong demand has developed in the pottery industry. The price, which will remain the same during the first six months of the coming year, is still at from $12 to $15 a ton on the domestic with the imported at from $16 to $20 depending upon the grades and quantity required.

CHLORINE.—Chlorine has suffered a slight reduction during the past week or ten days according to reports of the dealers who say that it can now be had at from 3.00 to 3.40 cents a pound in tanks.

ROSIN.—Naval stores also remained in a static condition during the past seven days with the price about the same. The paper industry is not calling for so much of the product as it generally does at this time but manufacturers say that there is little hope for any reductions in price. The price is about $5.80 to $6 in 280-pound barrels.

SALTCAKE.—Saltcake is still in fair demand, although there was a slight falling off in the call for it during the past week. The situation is not such as to cause any change in the price, however, which remains at from $22 to $24 a ton. It is said that concessions will be made in this on the open market in some instances.

SODA ASH.—There was not much call for soda ash during the week alothough paper men were said to be making more inquiries about the product. The price remains about the same at 1.38 cents a pound on a flat basis.

SULPHATE OF ALUMINA.—Alumina is not quite as good in demand as it was. Dealers report that they have fairly large stocks on hand, but there is no tendency toward extreme price cutting. The price remains at 2.00 to 2.25 cents for the iron free and 1.20 to 1.30 cents for the commercial grades per pound.

Market Quotations

(*Continued from page 67*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.25	@	2.50
Writing Paper	2.00	@	2.25
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.75	@	2.00
Container Manila	1.25	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.25	@	1.35
Old Newspaper	.90	@	1.00
No. 1 Mixed Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10

Domestic Rags—New.
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	—
Silesias, No. 1	.07¼	@	.07½
New Unbleached	.10	@	.11
Washables	.04½	@	—
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.02¼	@	.02¾
New Black Soft	.05¾	@	.06¼
New Light Seconds	.02¾	@	.02¾
Khaki Cuttings	.11	@	.04¼
Corduroy	.03½	@	.04
New Canvas	.08¼	@	.08¾
New Black Mixed	.04	@	—
Old			
White, No. 1—			
Repacked	.06	@	.05¼
Miscellaneous	.04¼	@	.04¾
White, No. 2—			
Repacked	.03¼	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	2.15	@	2.35
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	.75	@	.90
No. 4	1.15	@	1.20
No. 5A	1.10	@	—
B			nominal
C			nominal

BOSTON

Paper

Bonds	.09	@	.63
Ledgers	.09	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.13
Books, M. F.	.07¼	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	—
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$45.00	@	47.50
News, Vat Lined	50.00	@	—
Wood, Vat Lined	57.50	@	—
Filled News Board	$50.00	@	52.50
Solid News Board, No. 4 Finish	70.00	@	—
S. Manila Chip	65.00	@	70.00
Pat. Coated	85.00	@	95.00

Old Papers

Mixed Paper	.52½	@	.57½
Folded News	.80	@	.87½
Soft White Shavings	3.00	@	3.25
Hard White Shavings	3.85	@	4.10
Kraft Paper	2.10	@	2.20
Ledger and Letter	2.15	@	2.35
No. 1 Books and Magazines	1.70	@	1.90
Manila Paper No. 1	1.75	@	1.80
Solid Ledgers	2.50	@	2.75
No. 1 Roofing rags	1.50	@	1.60
No. 2 Roofing	1.40	@	1.50
No. 3 Gunny Bagging	.70	@	.80
No. 4 Brussels and Hard Back Carpets	1.20	@	1.25
No. 5 Roofing rags			
A's	1.25	@	1.30
B's	1.00	@	1.10
C's	.80	@	.90
No. 6 City Dump rags		@	
Manila Rope, Domestic	.06	@	.06½
Mixed Strings	1.05	@	1.15
Jute Strings	1.30	@	1.40

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$38.00	@	40.00
Sulphite easy bleaching	55.00	@	60.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached	80.00	@	—
Sulphate	70.00	@	75.00

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	
Soft White Book shavings	3.20	@	
White Blk. News	2.15	@	
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.60	@	—
Light and Crumpled Book Stock	1.45	@	—
Ledgers and Writings	2.00	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	2.15	@	
Printed Manilas	1.55	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue	.90	@	—
Folded News	.90	@	—
No. 1 Mixed Papers	.70	@	—

Domestic Rags—
Price to mills, f. o. b. Toronto

	Per lb.		
No. 1 White shirt cuttings	.12¼	@	.12¾
No. 2 White shirt cuttings	.06	@	.06½
Fancy shirt cuttings	.06	@	.06¾
No. 1 Old Whites	.04¼	@	—
Third and blues	.02½	@	.02¾

	Per cwt.		
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Manila rope	.06¼	@	.06½
No. 2	1.15	@	—
Gunny Bagging	.01¾	@	—